FILE COPY


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=> d his ful

     (FILE 'HOME' ENTERED AT 10:28:43 ON 14 DEC 2005)

     FILE 'HCAPLUS' ENTERED AT 10:29:38 ON 14 DEC 2005
L1             1 SEA ABB=ON  PLU=ON  US20040209894/PN
                 D ALL
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 10:31:03 ON 14 DEC 2005
L2           159 SEA ABB=ON  PLU=ON  (101990-70-9/BI OR 103275-21-4/BI
                 OR 106-47-8/BI OR 107-11-9/BI OR 123148-66-3/BI OR
                 150977-45-0/BI OR 2163-33-9/BI OR 2163-34-0/BI OR
                 23775-42-0/BI OR 300843-50-9/BI OR 34107-46-5/BI OR
                 355013-01-3/BI OR 355013-02-4/BI OR 355013-03-5/BI OR
                 355013-04-6/BI OR 355013-05-7/BI OR 355013-06-8/BI OR
                 355013-07-9/BI OR 355013-08-0/BI OR 355013-09-1/BI OR
                 355013-10-4/BI OR 355013-11-5/BI OR 355013-12-6/BI OR
                 355013-13-7/BI OR 355013-14-8/BI OR 355013-15-9/BI OR
                 355013-16-0/BI OR 355013-17-1/BI OR 355013-18-2/BI OR
                 355013-19-3/BI OR 355013-20-6/BI OR 355013-21-7/BI OR
                 355013-22-8/BI OR 355013-23-9/BI OR 355013-24-0/BI OR
                 355013-25-1/BI OR 355013-26-2/BI OR 355013-27-3/BI OR
                 355013-28-4/BI OR 355013-29-5/BI OR 355013-30-8/BI OR
                 355013-31-9/BI OR 355013-32-0/BI OR 355013-33-1/BI OR
                 355013-34-2/BI OR 355013-35-3/BI OR 355013-36-4/BI OR
                 355013-37-5/BI OR 355013-38-6/BI OR 355013-39-7/BI OR
                 355013-40-0/BI OR 355013-41-1/BI OR 355013-42-2/BI OR
                 355013-43-3/BI OR 355013-44-4/BI OR 355013-45-5/BI OR
                 355013-46-6/BI OR 355013-47-7/BI OR 355013-48-8/BI OR
                 355013-49-9/BI OR 355013-50-2/BI OR 355013-51-3/BI OR
                 355013-52-4/BI OR 355013-53-5/BI OR 355013-54-6/BI OR
                 355013-55-7/BI OR 355013-56-8/BI OR 355013-57-9/BI OR
                 355013-58-0/BI OR 355013-59-1/BI OR 355013-60-4/BI OR
                 355013-61-5/BI OR 355013-62-6/BI OR 355013-63-7/BI OR
                 355013-64-8/BI OR 355013-65-9/BI OR 355013-66-0/BI OR
                 355013-67-1/BI OR 355013-69-3/BI OR 355013-70-6/BI OR
                 355013-71-7/BI OR 355013-72-8/BI OR 355013-73-9/BI OR
                 355013-74-0/BI OR 355013-75-1/BI OR 355013-76-2/BI OR
                 355013-77-3/BI OR 355013-78-4/BI OR 355013-79-5/BI OR
                 355013-80-8/BI OR 355013-81-9/BI OR 355013-82-0/BI OR
                 355013-83-1/BI OR 355013-84-2/BI OR 355013-85-3/BI OR
                 355013-86-4/BI OR 355013-87-5/BI OR 355013-88-6/BI OR
                 355013-89-7/BI OR 355013-90-0/BI

     FILE 'LREGISTRY' ENTERED AT 10:34:56 ON 14 DEC 2005
L3               STR

     FILE 'REGISTRY' ENTERED AT 10:59:47 ON 14 DEC 2005
L4               0 SEA SSS SAM L3

     FILE 'LREGISTRY' ENTERED AT 11:00:47 ON 14 DEC 2005
L5               STR L3

     FILE 'REGISTRY' ENTERED AT 11:01:58 ON 14 DEC 2005
L6               0 SEA SSS SAM L5

     FILE 'LREGISTRY' ENTERED AT 11:02:11 ON 14 DEC 2005
L7               STR L5

     FILE 'REGISTRY' ENTERED AT 11:10:42 ON 14 DEC 2005
L8               0 SEA SSS SAM L7
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              D SCAN L2

     FILE 'LREGISTRY' ENTERED AT 11:17:44 ON 14 DEC 2005
L9            STR L7

     FILE 'REGISTRY' ENTERED AT 11:20:34 ON 14 DEC 2005
L10         0 SEA SSS SAM L9
L11           SCR 1839 AND 1993
L12           SCR 2043
L13           SCR 1918
L14         2 SEA SSS SAM L9 AND L11 NOT L12 NOT L13
              D SCAN

     FILE 'LREGISTRY' ENTERED AT 11:26:08 ON 14 DEC 2005
L15           STR L9

     FILE 'REGISTRY' ENTERED AT 11:31:00 ON 14 DEC 2005
L16         2 SEA SSS SAM L15 AND L11 NOT L12 NOT L13
              D SCAN
              D QUE STAT
L17           SCR 2016
L18         2 SEA SSS SAM L15 AND L11 NOT L12 NOT L13 NOT L17
              D QUE STAT
              D QUE STAT L15
              D QUE STAT L9
              D SCAN L2
              D QUE STAT L9

     FILE 'LREGISTRY' ENTERED AT 12:00:42 ON 14 DEC 2005
L19           STR L9

     FILE 'REGISTRY' ENTERED AT 12:01:31 ON 14 DEC 2005
L20           SCR 1839 AND 1993 AND 1099
L21         1 SEA SSS SAM L19 AND L20 NOT L12 NOT L13 NOT L17
              D SCAN

     FILE 'LREGISTRY' ENTERED AT 12:05:41 ON 14 DEC 2005
L22           STR L15

     FILE 'REGISTRY' ENTERED AT 12:09:31 ON 14 DEC 2005
L23           SCR 1839 AND 1993 AND 1100
L24        50 SEA SSS SAM L22 AND L23 NOT L12 NOT L13 NOT L17
              D QUE STAT
L25           SCR 2007
L26           SCR 2023
L27           SCR 1996
L28         0 SEA SSS SAM L22 AND L23 NOT L12 NOT L13 NOT L17 NOT
              L25 NOT L26
              D QUE STAT
              D QUE STAT L21
L29         2 SEA SSS SAM L19 AND L23 NOT L12 NOT L13 NOT L17
              D SCAN
L30         1 SEA SSS SAM L19 AND L23 NOT L12 NOT L13 NOT L17 NOT
              L25 NOT L26
              D SCAN
              D QUE STAT
              D SCAN
L31         1 SEA SSS SAM L19 AND L20 NOT L12 NOT L13 NOT L17 NOT
              L25 NOT L26
L32           SCR 1839 AND 1993 AND 1122 AND 1589
L33         3 SEA SSS SAM L19 AND L32 NOT L12 NOT L13 NOT L17 NOT
              L25 NOT L26
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                D SCAN
                D SCAN L31
                D SCAN L30
                D QUE STAT
                D SCAN
L34           4 SEA SSS SAM L19 AND L32 NOT L12 NOT L13
                D SCAN
                D QUE STAT
                D SCAN L2
                D SCAN
                D SCAN
L35             SCR 2009
L36             SCR 1953
L37           4 SEA SSS SAM L19 AND L32 NOT L12 NOT L13 NOT L26 NOT
                L35 NOT L36
                D SCAN
                D QUE STAT
L38         465 SEA SSS FUL L19 AND L32 NOT L12 NOT L13 NOT L26 NOT
                L35 NOT L36
                SAV L38 DAV181/A
                D QUE STAT L9
                D QUE STAT L19
                D QUE STAT L15
L39          22 SEA SUB=L38 SSS SAM L15
                D QUE STAT

     FILE 'LREGISTRY' ENTERED AT 13:47:52 ON 14 DEC 2005
L40             STR L15

     FILE 'REGISTRY' ENTERED AT 13:49:24 ON 14 DEC 2005
L41           2 SEA SUB=L38 SSS SAM L40
                D SCAN
L42          81 SEA SUB=L38 SSS FUL L40
                SAV L42 DAV181A/A

     FILE 'LREGISTRY' ENTERED AT 13:51:42 ON 14 DEC 2005
L43             STR L40

     FILE 'REGISTRY' ENTERED AT 13:55:34 ON 14 DEC 2005
L44           1 SEA SUB=L38 SSS SAM L43
                D SCAN
L45          12 SEA SUB=L38 SSS FUL L43
                SAV L45 DAV181B/A
                D SCAN
L46           0 SEA ABB=ON  PLU=ON  L2 AND L38
                D QUE STAT
                D QUE STAT L38
                D COST
                D SCAN L45

     FILE 'HCAPLUS' ENTERED AT 14:24:07 ON 14 DEC 2005
L47         137 SEA ABB=ON  PLU=ON  L38
L48          23 SEA ABB=ON  PLU=ON  L42
L49           9 SEA ABB=ON  PLU=ON  L45
                D SCAN TI
L50          30 SEA ABB=ON  PLU=ON  L48 OR L49
L51         107 SEA ABB=ON  PLU=ON  L47 NOT L50
L52          21 SEA ABB=ON  PLU=ON  L50 NOT L49
L53       33153 SEA ABB=ON  PLU=ON  ANGIOGEN? OR ANGIO(A)GENES?
L54             QUE ABB=ON  PLU=ON  INHIBIT? OR HINDER? OR IMPED? OR
                ARREST? OR REDUC? OR REDN# OR RESIST? OR SUPPRESS? OR
                RETARD? OR PROHIBIT? OR PREVENT? OR BLOCK? OR ELIMINAT?
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                OR LESS? OR ABAT? OR DEPRESS? OR DIMINISH? OR
                CURTAIL? OR ABSEN?
L55         11576 SEA ABB=ON  PLU=ON  L54(2A)L53
L56             0 SEA ABB=ON  PLU=ON  L51 AND L55
L57             1 SEA ABB=ON  PLU=ON  L51 AND L53
                D SCAN
L58         39407 SEA ABB=ON  PLU=ON  TYROSIN?(A)KINAS?
L59         10084 SEA ABB=ON  PLU=ON  L54(3A)L58
L60             1 SEA ABB=ON  PLU=ON  L51 AND L59
L61             2 SEA ABB=ON  PLU=ON  L51 AND L58
                D KWIC
                D 1-2 KWIC
L62          2680 SEA ABB=ON  PLU=ON  VEGF(A)RECEPTOR?
L63           346 SEA ABB=ON  PLU=ON  L62(2A)L58
L64             1 SEA ABB=ON  PLU=ON  L63 AND L51
                D SCAN
L65               QUE ABB=ON  PLU=ON  DRUG? OR MEDICINE? OR NOSTRUM? OR
                  MEDICAMENT? OR PALLIATIV? OR ALLEVIATIV? OR LENITIV?
                  OR ASSUASIV? OR PROPHYLACT?
L66               QUE ABB=ON  PLU=ON  (THERAPEUTIC? OR CURATIV? OR
                  REMEDIAL? OR PHARMAC?)(A)(AGENT? OR FORMULAT? OR
                  COMPOUND# OR CPD# OR COMP# OR COMPOSIT? OR COMPSN#)
L67               QUE ABB=ON  PLU=ON  ANALGESIC? OR ANESTHETIC? OR
                  ANTISEPTIC? OR ANTIBIOTIC? OR NARCOTIC?
L68            30 SEA ABB=ON  PLU=ON  L51 AND ((L65 OR L66 OR L67))
L69             3 SEA ABB=ON  PLU=ON  L57 OR L60 OR L61 OR L64
L70            28 SEA ABB=ON  PLU=ON  L68 NOT L69

     FILE 'REGISTRY' ENTERED AT 14:42:49 ON 14 DEC 2005
L71             0 SEA ABB=ON  PLU=ON  L2 AND L38
                D QUE STAT L38
L72               SCR 1839 AND 1993 AND 1589
L73             2 SEA SSS SAM L19 AND L72 NOT L12 NOT L13 NOT L26 NOT
                  L35 NOT L36
                D SCAN
                D QUE STAT
L74               SCR 1122 OR 1044
L75             0 SEA SSS SAM L19 AND L72 AND L74 NOT L12 NOT L13 NOT
                  L26 NOT L35 NOT L36
                D QUE
L76           589 SEA SSS FUL L19 AND L72 AND L74 NOT L12 NOT L13 NOT
                  L26 NOT L35 NOT L36
L77             0 SEA ABB=ON  PLU=ON  L2 AND L76
L78             1 SEA SSS SAM L19 AND L72 AND L74
                D SCAN
                D SAV
                SAV L76 DAV181C/A
L79             2 SEA SSS SAM L19 AND L72 AND L74 NOT L12 NOT L13
                D SCAN
                D QUE STAT
L80           758 SEA SSS FUL L19 AND L72 AND L74 NOT L12 NOT L13
L81             0 SEA ABB=ON  PLU=ON  L2 AND L80
                D QUE STAT

     FILE 'HCAPLUS' ENTERED AT 15:22:54 ON 14 DEC 2005
L82         29601 SEA ABB=ON  PLU=ON  L2
L83           411 SEA ABB=ON  PLU=ON  L82 AND (L55 OR L59)
L84             2 SEA ABB=ON  PLU=ON  L83 AND L47
                D SCAN

     FILE 'REGISTRY' ENTERED AT 15:34:52 ON 14 DEC 2005
L85               STR L19
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L86           2 SEA SSS SAM L85 AND L72 AND L74 NOT L12 NOT L13
                D SCAN

      FILE 'LREGISTRY' ENTERED AT 15:47:04 ON 14 DEC 2005

      FILE 'REGISTRY' ENTERED AT 15:52:27 ON 14 DEC 2005
                D QUE STAT

      FILE 'LREGISTRY' ENTERED AT 16:03:15 ON 14 DEC 2005
L87             STR L85

      FILE 'REGISTRY' ENTERED AT 16:04:26 ON 14 DEC 2005
L88          20 SEA SSS SAM L87 AND L72 AND L74 NOT (L12 OR L13)
                D QUE STAT
L89        9238 SEA SSS FUL L87 AND L72 AND L74 NOT (L12 OR L13)
L90          14 SEA ABB=ON  PLU=ON  L2 AND L89
                D SAV
                SAV L89 DAV181D/A
                D QUE STAT
                D QUE STAT L86
                D SCAN
                D QUE STAT L85

      FILE 'LREGISTRY' ENTERED AT 16:11:42 ON 14 DEC 2005
L91             STR L85

      FILE 'REGISTRY' ENTERED AT 16:13:43 ON 14 DEC 2005
L92          50 SEA SUB=L89 SSS SAM L91

      FILE 'LREGISTRY' ENTERED AT 16:15:37 ON 14 DEC 2005
L93             STR L91

      FILE 'REGISTRY' ENTERED AT 16:17:11 ON 14 DEC 2005
L94          50 SEA SUB=L89 SSS SAM L93
L95        4441 SEA SUB=L89 SSS FUL L93
                SAV L95 DAV181E/A
L96          14 SEA ABB=ON  PLU=ON  L2 AND L95

      FILE 'LREGISTRY' ENTERED AT 16:19:37 ON 14 DEC 2005
L97             STR L40

      FILE 'REGISTRY' ENTERED AT 16:21:33 ON 14 DEC 2005
L98          27 SEA SUB=L95 SSS SAM L97
                D QUE STAT
L99         618 SEA SUB=L95 SSS FUL L97
                SAV L99 DAV181F/A
                D QUE STAT L43

      FILE 'LREGISTRY' ENTERED AT 16:24:11 ON 14 DEC 2005
L100            STR L43

      FILE 'REGISTRY' ENTERED AT 16:25:20 ON 14 DEC 2005
                D QUE STAT
                D QUE STAT L99
L101          0 SEA ABB=ON  PLU=ON  L99 AND L2
                D QUE STAT L99
L102         12 SEA SUB=L95 SSS SAM L100
                D SCAN
L103        168 SEA SUB=L95 SSS FUL L100
L104         14 SEA ABB=ON  PLU=ON  L2 AND L103
                SAV L104 DAV181G/A
                D SCAN
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              D QUE STAT L103

     FILE 'HCAPLUS' ENTERED AT 16:31:51 ON 14 DEC 2005
L105          1 SEA ABB=ON  PLU=ON  L104
L106         88 SEA ABB=ON  PLU=ON  L103
L107        178 SEA ABB=ON  PLU=ON  L99
L108        783 SEA ABB=ON  PLU=ON  L95
L109       2017 SEA ABB=ON  PLU=ON  L89

     FILE 'REGISTRY' ENTERED AT 16:33:03 ON 14 DEC 2005
              D QUE STAT L103
              D QUE STAT L100
              D SCAN L104

     FILE 'LREGISTRY' ENTERED AT 16:35:36 ON 14 DEC 2005
L110          STR L100

     FILE 'REGISTRY' ENTERED AT 16:36:53 ON 14 DEC 2005
L111          7 SEA SUB=L95 SSS SAM L110
              D SCAN
L112         78 SEA SUB=L95 SSS FUL L110
              SAV L112 DAV181H/A

     FILE 'HCAPLUS' ENTERED AT 16:38:52 ON 14 DEC 2005
L113         47 SEA ABB=ON  PLU=ON  L112
              D 1-5 FHITSTR
L114          1 SEA ABB=ON  PLU=ON  L113 AND L1

     FILE 'LREGISTRY' ENTERED AT 16:41:24 ON 14 DEC 2005
L115          STR L110

     FILE 'REGISTRY' ENTERED AT 16:50:11 ON 14 DEC 2005
L116          4 SEA SUB=L95 SSS SAM L115
              D SCAN
L117         15 SEA SUB=L95 SSS FUL L115
              SAV L117 DAV181I/A

     FILE 'HCAPLUS' ENTERED AT 16:51:30 ON 14 DEC 2005
L118          2 SEA ABB=ON  PLU=ON  L117
              D SCAN
L119         45 SEA ABB=ON  PLU=ON  L113 NOT L118
L120         71 SEA ABB=ON  PLU=ON  L50 OR L113
L121         24 SEA ABB=ON  PLU=ON  L120 NOT L113
L122          2 SEA ABB=ON  PLU=ON  L55 AND L120
L123          3 SEA ABB=ON  PLU=ON  L122 OR L118
L124          2 SEA ABB=ON  PLU=ON  L120 AND L59
L125          2 SEA ABB=ON  PLU=ON  L120 AND L53
L126          2 SEA ABB=ON  PLU=ON  L120 AND L58
L127          4 SEA ABB=ON  PLU=ON  (L123 OR L124 OR L125 OR L126)
L128        457 SEA ABB=ON  PLU=ON  L108 AND L54
L129         22 SEA ABB=ON  PLU=ON  L108 AND L59
L130          2 SEA ABB=ON  PLU=ON  L108 AND L63
L131         24 SEA ABB=ON  PLU=ON  L108 AND L58
L132          3 SEA ABB=ON  PLU=ON  L108 AND L62
L133        298 SEA ABB=ON  PLU=ON  L108 AND ((L65 OR L66 OR L67))
L134          6 SEA ABB=ON  PLU=ON  L127 OR L130 OR L132
L135         22 SEA ABB=ON  PLU=ON  L128 AND L129
L136         26 SEA ABB=ON  PLU=ON  L135 OR L131 OR L134
L137         24 SEA ABB=ON  PLU=ON  L136 NOT L118
L138         20 SEA ABB=ON  PLU=ON  L137 NOT (L134 OR L118)
L139         44 SEA ABB=ON  PLU=ON  L119 NOT L136
L140          4 S L137 NOT L138
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=> => d que stat l118
L12             SCR 2043
L13             SCR 1918
L72             SCR 1839 AND 1993 AND 1589
L74             SCR 1122 OR 1044
L87             STR
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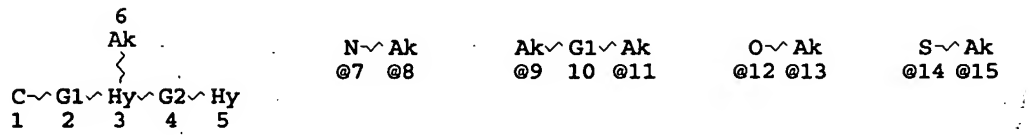
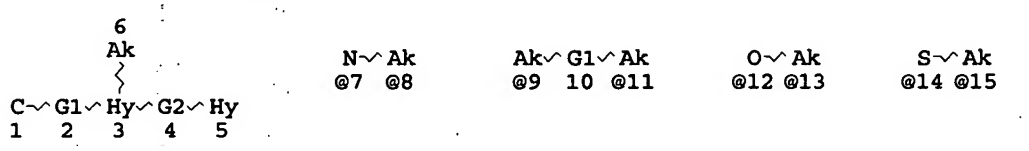



```
VAR G1=N/O/S
VAR G2=AK/O/N/S/9-3 11-5/7-3 8-5/7-5 8-3/12-3 13-5/12-5 13-3/14-3 15-5
NODE ATTRIBUTES:
NSPEC   IS RC     AT   1
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT   5
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M5-X9 C  M1-X2 N  AT   5

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

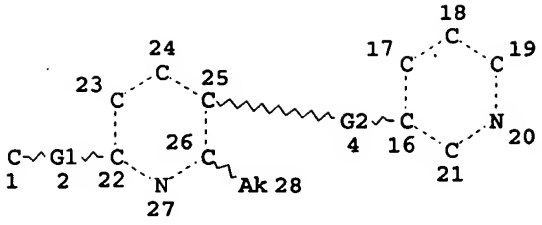
STEREO ATTRIBUTES: NONE
L89         9238 SEA FILE=REGISTRY SSS FUL L87 AND L72 AND L74 NOT (L12
                 OR L13)
L93             STR
```




```
VAR G1=N/O/S
VAR G2=AK/O/N/S/9-3 11-5/7-3 8-5/7-5 8-3/12-3 13-5/12-5 13-3/14-3 15-5
NODE ATTRIBUTES:
NSPEC   IS RC     AT   1
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT   5
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M5-X9 C  M1-X2 N  AT   3
ECOUNT  IS M5-X9 C  M1-X2 N  AT   5
ECOUNT  IS M1-X3 C  AT   6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L95         4441 SEA FILE=REGISTRY SUB=L89 SSS FUL L93
L115            STR
```



VAR G1=N/O/S
REP G2=(1-3) CH2
NODE ATTRIBUTES:
NSPEC IS RC AT 1
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X3 C AT 28

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

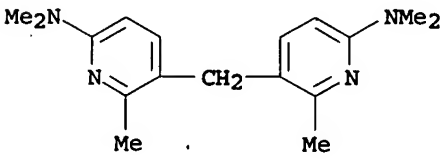
STEREO ATTRIBUTES: NONE
L117 15 SEA FILE=REGISTRY SUB=L95 SSS FUL L115
L118 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L117

=> d l118 1-2 cbib abs hitstr hitind

L118 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
2003:413065 Document No. 139:157647 Crystal structure of bis(2-N,N-dimethylamino-6-methylpyridine-5-yl)methane, C17H24N4.
Brunner, H.; Kollnberger, A.; Zabel, M. (Universitat Regensburg, Institut fur Anorganische Chemie, Regensburg, D-93040, Germany).
Zeitschrift fuer Kristallographie - New Crystal Structures, 218(1), 125-126 (English) 2003. CODEN: ZKNSFT. ISSN: 1433-7266.
Publisher: Oldenbourg Wissenschaftsverlag GmbH.

AB The title compound is monoclinic, space group P21/c, a 11.035(1), b 7.7854(5), c 19.166(2) Å, β 102.51(1)°; Z = 4; Rgt(F) = 0.047, wRref(F2) = 0.115; T = 173 K. Atomic coordinates are given. The pyridine substituents at the bridging CH2 form a slightly enlarged tetrahedral angle of 114.9°.

IT **571194-04-2**
RL: PRP (Properties)
(crystal structure of)
RN 571194-04-2 HCAPLUS
CN 2-Pyridinamine, 5,5'-methylenebis[N,N,6-trimethyl- (9CI) (CA INDEX NAME)

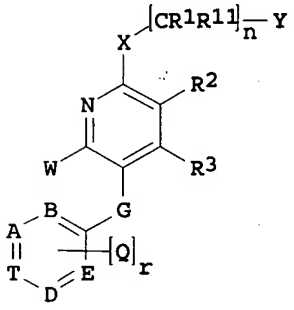


CC 75-8 (Crystallography and Liquid Crystals)
Section cross-reference(s): 27

IT **571194-04-2**
RL: PRP (Properties)
(crystal structure of)

L118 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
2001:597986 Document No. 135:180710 Preparation of isoquinolinamines inhibiting angiogenesis and/or VEGF receptor tyrosine kinase. Bold, Guido; Manley, Paul William (Novartis A.-G.; Switz.; Novartis-Erfindungen Verwaltungsgesellschaft m.b.H.). PCT Int. Appl. WO 2001058899 A1 20010816, 98 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-EP1331 20010207. PRIORITY: CH 2000-265 20000209.

GI



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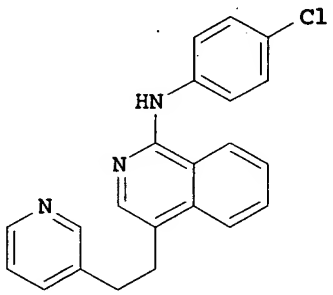


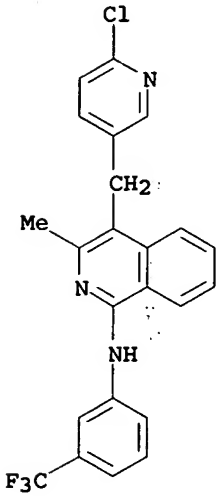
II

AB The title compds. [I; A, D, T = N, CH, CR4 (with the proviso that at least one of A and D = CR4 when T = N); R4 = alkyl, alkenyl, alkylthio, etc.; B, E = N, CH; G = alkylene, alkenylene, CH2OCH2, etc.; n = 0-2; Q = alkyl, whereby A, D and T are not substituted by Q if they represent CR4; r = 0-5; R1, R11 = H, alkyl; R2, R3 = alkyl; or R2 and R3 together form a bridge to form isoquinoline, naphthyridine, etc.; X = NR5, O, S; R5 = H, alkyl; Y = H, aryl, heterocyclyl, etc.], useful for the treatment of a disease which responds to an inhibition of angiogenesis, were prepared and formulated. E.g., a multi-step synthesis of II which showed IC50 of 0.105 μM against KDR VEGF-receptor tyrosine kinase, was given.

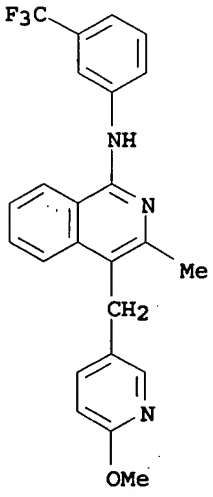
IT **355013-53-5P 355013-54-6P 355013-55-7P**
355013-56-8P 355013-57-9P 355013-58-0P
355013-59-1P 355013-60-4P 355013-61-5P
355013-62-6P 355013-63-7P 355013-64-8P
355013-65-9P 355013-66-0P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of isoquinolinamines inhibiting angiogenesis and/or VEGF receptor tyrosine kinase)

RN 355013-53-5 HCAPLUS

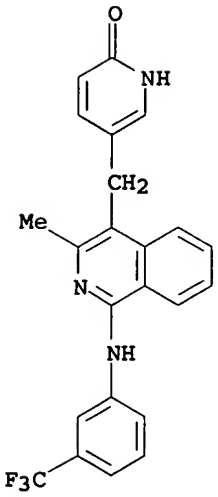
CN 1-Isoquinolinamine, 4-[(6-chloro-3-pyridinyl)methyl]-3-methyl-N-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



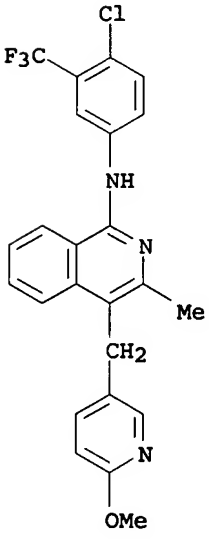
RN 355013-54-6 HCAPLUS
CN 1-Isoquinolinamine, 4-[(6-methoxy-3-pyridinyl)methyl]-3-methyl-N-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



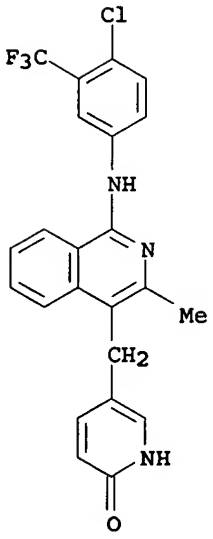
RN 355013-55-7 HCAPLUS
CN 2(1H)-Pyridinone, 5-[[3-methyl-1-[[3-(trifluoromethyl)phenyl]amino]-4-isoquinolinyl]methyl]- (9CI) (CA INDEX NAME)



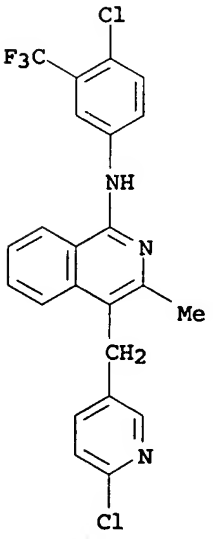
RN 355013-56-8 HCAPLUS
CN 1-Isoquinolinamine, N-[4-chloro-3-(trifluoromethyl)phenyl]-4-[(6-methoxy-3-pyridinyl)methyl]-3-methyl- (9CI) (CA INDEX NAME)



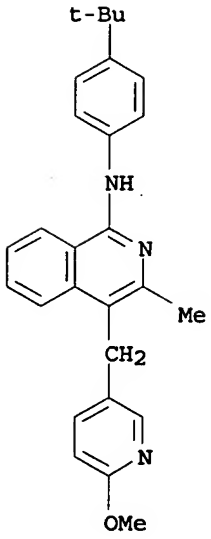
RN 355013-57-9 HCAPLUS
CN 2(1H)-Pyridinone, 5-[[1-[[4-chloro-3-(trifluoromethyl)phenyl]amino]-3-methyl-4-isoquinolinyl]methyl]- (9CI) (CA INDEX NAME)



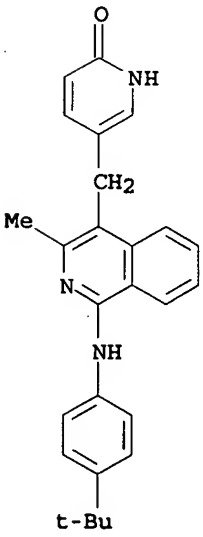
RN 355013-58-0 HCAPLUS
CN 1-Isoquinolinamine, 4-[(6-chloro-3-pyridinyl)methyl]-N-[4-chloro-3-(trifluoromethyl)phenyl]-3-methyl- (9CI) (CA INDEX NAME)



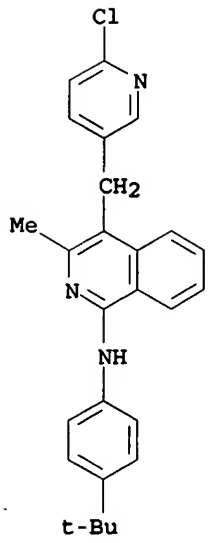
RN 355013-59-1 HCAPLUS
CN 1-Isoquinolinamine, N-[4-(1,1-dimethylethyl)phenyl]-4-[(6-methoxy-3-pyridinyl)methyl]-3-methyl- (9CI) (CA INDEX NAME)



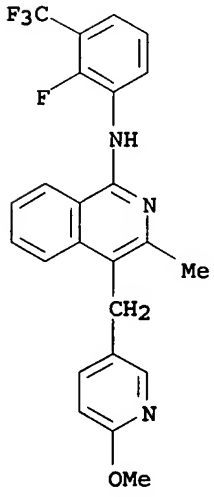
RN 355013-60-4 HCAPLUS
CN 2(1H)-Pyridinone, 5-[[1-[[4-(1,1-dimethylethyl)phenyl]amino]-3-methyl-4-isoquinolinyl]methyl]- (9CI) (CA INDEX NAME)



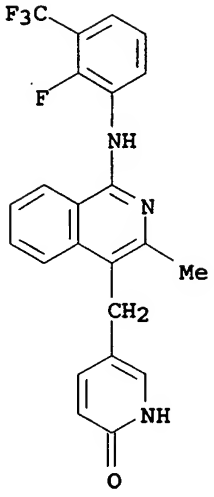
RN 355013-61-5 HCAPLUS
CN 1-Isoquinolinamine, 4-[(6-chloro-3-pyridinyl)methyl]-N-[4-(1,1-dimethylethyl)phenyl]-3-methyl- (9CI) (CA INDEX NAME)



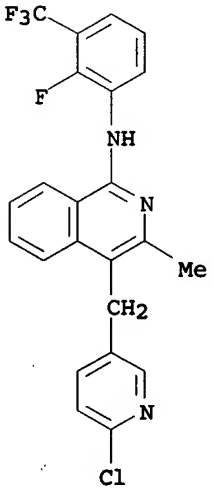
RN 355013-62-6 HCAPLUS
CN 1-Isoquinolinamine, N-[2-fluoro-3-(trifluoromethyl)phenyl]-4-[(6-methoxy-3-pyridinyl)methyl]-3-methyl- (9CI) (CA INDEX NAME)



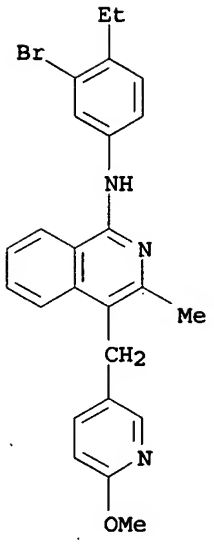
RN 355013-63-7 HCAPLUS
CN 2(1H)-Pyridinone, 5-[[1-[[2-fluoro-3-(trifluoromethyl)phenyl]amino]-3-methyl-4-isoquinolinyl]methyl]- (9CI) (CA INDEX NAME)



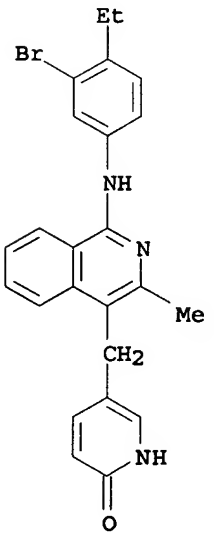
RN 355013-64-8 HCAPLUS
CN 1-Isoquinolinamine, 4-[(6-chloro-3-pyridinyl)methyl]-N-[2-fluoro-3-(trifluoromethyl)phenyl]-3-methyl- (9CI) (CA INDEX NAME)



RN 355013-65-9 HCAPLUS
CN 1-Isoquinolinamine, N-(3-bromo-4-ethylphenyl)-4-[(6-methoxy-3-pyridinyl)methyl]-3-methyl- (9CI) (CA INDEX NAME)



RN 355013-66-0 HCAPLUS
CN 2(1H)-Pyridinone, 5-[[1-[(3-bromo-4-ethylphenyl)amino]-3-methyl-4-isoquinolinyl]methyl]- (9CI) (CA INDEX NAME)



IC ICM C07D471-04
ICS C07D401-06; A61P035-00; A61K031-47; A61K031-435; C07D471-04; C07D221-00; C07D221-00; C07D471-04; C07D239-00; C07D221-00
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 63
IT 355013-01-3P 355013-02-4P 355013-03-5P 355013-04-6P
355013-05-7P 355013-06-8P 355013-07-9P 355013-08-0P
355013-09-1P 355013-10-4P 355013-11-5P 355013-12-6P
355013-13-7P 355013-14-8P 355013-15-9P 355013-16-0P
355013-17-1P 355013-18-2P 355013-19-3P 355013-20-6P

355013-22-8P 355013-24-0P 355013-25-1P 355013-27-3P
355013-28-4P 355013-29-5P 355013-30-8P 355013-31-9P
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355013-36-4P 355013-37-5P 355013-38-6P 355013-39-7P
355013-40-0P 355013-42-2P 355013-43-3P 355013-44-4P
355013-46-6P 355013-47-7P 355013-48-8P 355013-49-9P
355013-50-2P 355013-51-3P 355013-52-4P **355013-53-5P**
355013-54-6P 355013-55-7P 355013-56-8P
355013-57-9P 355013-58-0P 355013-59-1P
355013-60-4P 355013-61-5P 355013-62-6P
355013-63-7P 355013-64-8P 355013-65-9P
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355014-09-4P 355014-10-7P 355014-11-8P 355014-12-9P
355014-13-0P 355014-14-1P 355014-15-2P 355014-16-3P
355014-17-4P 355014-18-5P 355014-19-6P 355014-20-9P
355014-21-0P 355014-22-1P 355014-23-2P 355014-24-3P
355014-25-4P 355014-26-5P 355014-27-6P 355014-28-7P
355014-29-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of isoquinolinamines inhibiting angiogenesis and/or VEGF receptor tyrosine kinase)

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L12             SCR 2043
L13             SCR 1918
L19             STR
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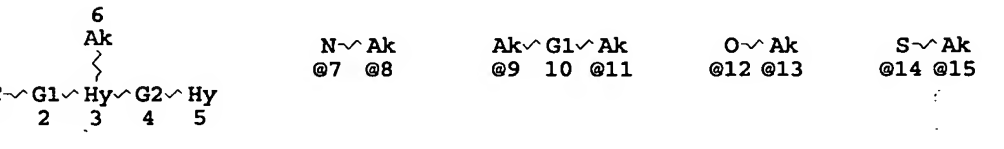


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VAR G1=N/O/S
VAR G2=AK/O/N/S/9-3 11-5/7-3 8-5/7-5 8-3/12-3 13-5/12-5 13-3/14-3 15-5
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT   5
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E5 C  E1 N  AT   3
ECOUNT  IS M5-X9 C  M1-X2 N  AT   5
ECOUNT  IS M1-X3 C  AT   6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L26             SCR 2023
L32             SCR 1839 AND 1993 AND 1122 AND 1589
L35             SCR 2009
L36             SCR 1953
L38         465 SEA FILE=REGISTRY SSS FUL L19 AND L32 NOT L12 NOT L13
                NOT L26 NOT L35 NOT L36
L40             STR
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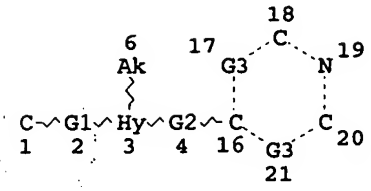
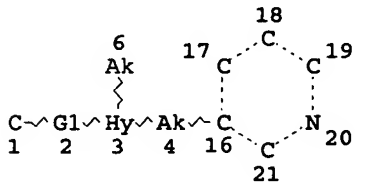
N~Ak Ak~G1~Ak O~Ak S~Ak
@7 @8 @9 10 @11 @12 @13 @14 @15



VAR G1=N/O/S
VAR G2=AK/O/N/S/9-3 11-16/7-3 8-16/7-16 8-3/12-3 13-16/12-16 13-3/14-3 15-16
VAR G3=C/N
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 3
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E5 C E1 N AT 3
ECOUNT IS M1-X3 C AT 6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L42 81 SEA FILE=REGISTRY SUB=L38 SSS FUL L40
L43 STR



VAR G1=N/O/S
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 3
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E5 C E1 N AT 3
ECOUNT IS M1-X3 C AT 6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L45 12 SEA FILE=REGISTRY SUB=L38 SSS FUL L43
L48 23 SEA FILE=HCAPLUS ABB=ON PLU=ON L42
L49 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L45
L50 30 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 OR L49
L53 33153 SEA FILE=HCAPLUS ABB=ON PLU=ON ANGIOGEN? OR ANGIO(A)GENES?
L54 QUE ABB=ON PLU=ON INHIBIT? OR HINDER? OR IMPED? OR ARREST? OR REDUC? OR REDN# OR RESIST? OR SUPPRESS? OR RE

```
                TARD? OR PROHIBIT? OR PREVENT? OR BLOCK? OR ELIMINAT? O
                R LESS? OR ABAT? OR DEPRESS? OR DIMINISH? OR CURTAIL? O
                R ABSEN?
L55         11576 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L54(2A)L53
L58         39407 SEA FILE=HCAPLUS ABB=ON  PLU=ON  TYROSIN?(A)KINAS?
L59         10084 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L54(3A)L58
L62          2680 SEA FILE=HCAPLUS ABB=ON  PLU=ON  VEGF(A)RECEPTOR?
L63           346 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L62(2A)L58
L72               SCR 1839 AND 1993 AND 1589
L74               SCR 1122 OR 1044
L87               STR
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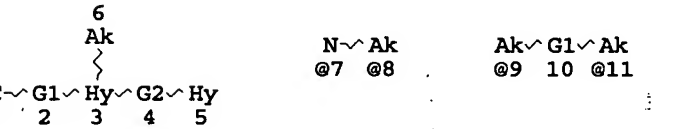


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VAR G1=N/O/S
VAR G2=AK/O/N/S/9-3 11-5/7-3 8-5/7-5 8-3/12-3 13-5/12-5 13-3/14-3 15-5
NODE ATTRIBUTES:
NSPEC   IS RC     AT   1
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT   5
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M5-X9 C  M1-X2 N  AT   5

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L89          9238 SEA FILE=REGISTRY SSS FUL L87 AND L72 AND L74 NOT (L12
                  OR L13)
L93               STR
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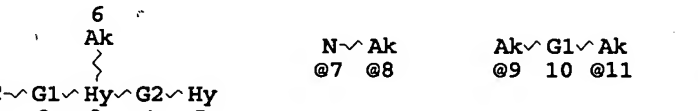


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VAR G1=N/O/S
VAR G2=AK/O/N/S/9-3 11-5/7-3 8-5/7-5 8-3/12-3 13-5/12-5 13-3/14-3 15-5
NODE ATTRIBUTES:
NSPEC   IS RC     AT   1
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT   5
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M5-X9 C  M1-X2 N  AT   3
ECOUNT  IS M5-X9 C  M1-X2 N  AT   5
ECOUNT  IS M1-X3 C  AT   6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L95          4441 SEA FILE=REGISTRY SUB=L89 SSS FUL L93
L108          783 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L95
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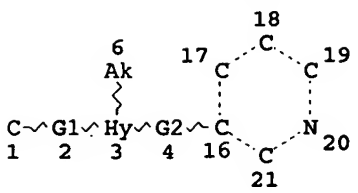
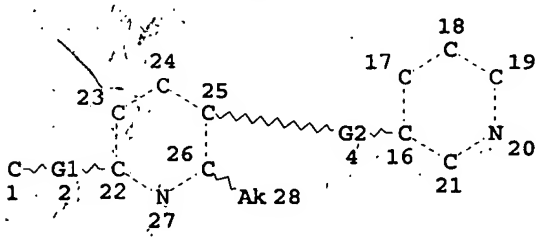
L110 STR



VAR G1=N/O/S
REP G2=(1-3) CH2
NODE ATTRIBUTES:
NSPEC IS RC AT 1
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 3
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X3 C AT 6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L112 78 SEA FILE=REGISTRY SUB=L95 SSS FUL L110
L113 47 SEA FILE=HCAPLUS ABB=ON PLU=ON L112
L115 STR



VAR G1=N/O/S
REP G2=(1-3) CH2
NODE ATTRIBUTES:
NSPEC IS RC AT 1
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X3 C AT 28

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L117 15 SEA FILE=REGISTRY SUB=L95 SSS FUL L115
L118 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L117
L120 71 SEA FILE=HCAPLUS ABB=ON PLU=ON L50 OR L113
L122 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L55 AND L120
L123 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L122 OR L118
L124 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L120 AND L59
L125 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L120 AND L53
L126 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L120 AND L58
L127 4 SEA FILE=HCAPLUS ABB=ON PLU=ON (L123 OR L124 OR L125 OR L126)
L128 457 SEA FILE=HCAPLUS ABB=ON PLU=ON L108 AND L54

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L129          22 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L108 AND L59
L130           2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L108 AND L63
L131          24 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L108 AND L58
L132           3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L108 AND L62
L134           6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L127 OR L130 OR L132
L135          22 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L128 AND L129
L136          26 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L135 OR L131 OR L134
L137          24 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L136 NOT L118
L138          20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L137 NOT (L134 OR
                 L118)
L140           4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L137 NOT L138


=> d l140 1-4 cbib abs hitstr hitind

L140 ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2005 ACS on STN
2005:300201  Document No. 142:373856  Preparation of quinolines and
     quinazolines as inhibitors of c-Met and other
     tyrosine kinases and therapeutic uses against
     proliferative diseases.  Bannen, Lynne Canne; Chan, Diva Sze-ming;
     Chen, Jeff; Dalrymple, Lisa Esther; Forsyth, Timothy Patrick;
     Huynh, Tai Phat; Jammalamadaka, Vasu; Khoury, Richard George;
     Leahy, James William; Mac, Morrison B.; Mann, Grace; Mann, Larry
     W.; Nuss, John M.; Parks, Jason Jevious; Takeuchi, Craig Stacy;
     Wang, Yong; Xu, Wei (Exelixis, Inc., USA).  PCT Int. Appl. WO
     2005030140 A2 20050407, 428 pp.  DESIGNATED STATES: W:  AE, AG,
     AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO,
     CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH,
     GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
     LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ,
     OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
     TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT,
     BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB,
     GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR.
     (English).  CODEN: PIXXD2.  APPLICATION: WO 2004-US31523 20040924.
     PRIORITY: US 2003-2003/PV50618U 20030926; US 2004-2004/PV53537U
     20040109; US 2004-2004/PV577384 20040604.
GI
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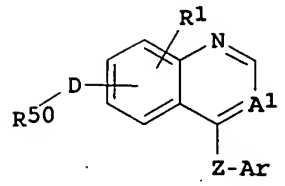
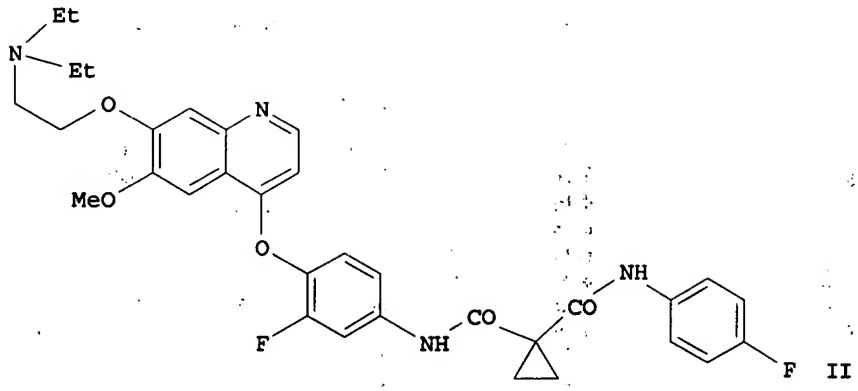


I



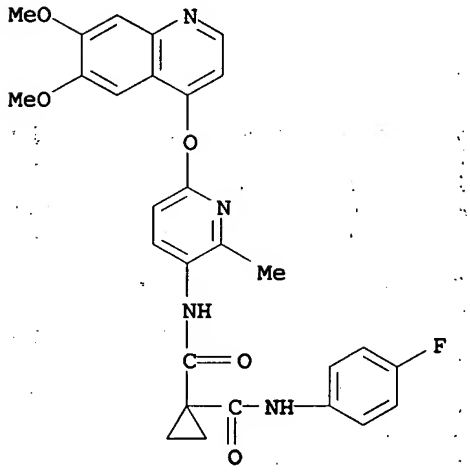
II

AB The present invention provides compds. (shown as I; variables defined below; e.g. N-[4-[[7-[[2-(diethylamino)ethyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide (shown as II)) for modulating protein kinase enzymic activity for modulating cellular activities such as proliferation, differentiation, programmed cell death, migration and chemoinvasion. More specifically, the invention provides quinazolines and quinolines which **inhibit**, regulate and/or modulate kinase receptors, particularly c-Met, KDR, c-Kit, flt-3 and flt-4, signal transduction pathways related to the changes in cellular activities as mentioned above, compns. which contain these compds., and methods of using them to treat kinase-dependent diseases and conditions. The present invention also provides methods for making compds. as mentioned above, and compns. which contain these compds. For I: R1 = H, halogen, OR3, NO2, NH2, NR3R4, and (un)substituted lower alkyl; A1 = :N-, :C(H)-, and :C(CN)-; Z = -S(O)0-2-, -O-, and -NR5-; Ar is aryl or heteroaryl; D = -O-, -S(O)0-2-, and -NR15-; R50 = R3 or bicyclic radical; addnl. details are given in the claims. Methods of preparation are claimed and .apprx.80 example prepns. of I and intermediates are included. For example, II was prepared (34 %) from 2-(diethylamino)ethanol and cyclopropane-1,1-dicarboxylic acid N-[3-fluoro-4-[(7-hydroxy-6-methoxyquinolin-4-yl)oxy]phenyl]amide N-(4-fluorophenyl)amide, which was prepared (89 %) by deprotection of cyclopropane-1,1-dicarboxylic acid N-[4-[(7-benzyloxy-6-methoxyquinolin-4-yl)oxy]-3-fluorophenyl]amide N-(4-fluorophenyl)amide, which was prepared (48 %) from trifluoromethanesulfonic acid 7-benzyloxy-6-methoxyquinolin-4-yl ester and cyclopropane-1,1-dicarboxylic acid N-(3-fluoro-4-hydroxyphenyl)amide N-(4-fluorophenyl)amide, which was prepared (85 %) by deprotection of cyclopropane-1,1-dicarboxylic acid N-(4-benzyloxy-3-fluorophenyl)amide N-(4-fluorophenyl)amide, which was prepared (98 %) from (4-benzyloxy-3-fluorophenyl)amine and 1-(4-fluorophenylcarbamoyl)cyclopropanecarboxylic acid; addnl.

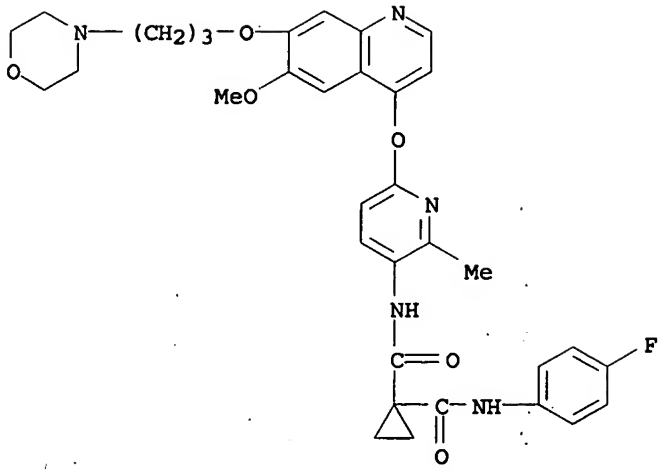
details are given in the examples.

IT **849221-30-3P**, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-2-methylpyridin-3-yl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide **849221-40-5P**, N-(4-Fluorophenyl)-N'-[2-methyl-6-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]pyridin-3-yl]cyclopropane-1,1-dicarboxamide **849221-42-7P**, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloro-2-methylpyridin-3-yl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

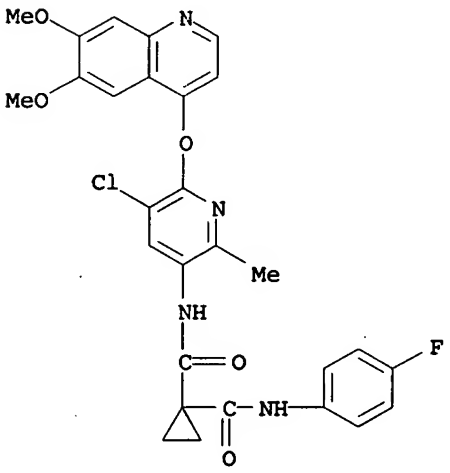
RN 849221-30-3 HCAPLUS
CN 1,1-Cyclopropanedicarboxamide, N-[6-[(6,7-dimethoxy-4-quinolinyl)oxy]-2-methyl-3-pyridinyl]-N'-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



RN 849221-40-5 HCAPLUS
CN 1,1-Cyclopropanedicarboxamide, N-(4-fluorophenyl)-N'-[6-[[6-methoxy-7-[3-(4-morpholinyl)propoxy]-4-quinolinyl]oxy]-2-methyl-3-pyridinyl]- (9CI) (CA INDEX NAME)



RN 849221-42-7 HCAPLUS
CN 1,1-Cyclopropanedicarboxamide, N-[5-chloro-6-[(6,7-dimethoxy-4-quinolinyl)oxy]-2-methyl-3-pyridinyl]-N'-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



IC ICM A61K
CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 27
ST quinoline quinazoline prepn c Met **tyrosine kinase inhibitor** antiproliferative
IT Cell proliferation
(**inhibition**; preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)
IT Apoptosis
Cell differentiation
Cell migration
(modulators; preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine**

kinases and therapeutic uses against proliferative diseases)

IT Antitumor agents
Cytotoxic agents
Human
Neoplasm
Structure-activity relationship
(preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

IT Disease, animal
(proliferative; preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

IT 417721-28-9P, 6,7-Dimethoxy-4-(5-nitropyridin-2-yloxy)quinoline 417721-29-0P, [6-[(6,7-Dimethoxyquinolin-4-yl)oxy]pyridin-3-yl]amine 479690-03-4P, 7-Benzyloxy-4-(2-fluoro-4-nitrophenoxy)-6-methoxyquinoline 479690-08-9P, 4-(2-Fluoro-4-nitrophenoxy)-6-methoxyquinolin-7-ol 849217-24-9P, 5-[[[4-(2-Fluoro-4-nitrophenoxy)-6-methoxyquinolin-7-yl]oxy]methyl]hexahydrocyclopenta[c]pyrrole-2-carboxylic acid benzyl ester 849217-26-1P, 4-(2-Fluoro-4-nitrophenoxy)-6-methoxy-7-[[octahydrocyclopenta[c]pyrrol-5-yl]methoxy]quinoline 849217-27-2P, 4-(2-Fluoro-4-nitrophenoxy)-6-methoxy-7-[[2-methyloctahydrocyclopenta[c]pyrrol-5-yl]methoxy]quinoline 849217-28-3P, [3-Fluoro-4-[[6-methoxy-7-[[2-methyloctahydrocyclopenta[c]pyrrol-5-yl]methoxy]quinolin-4-yl]oxy]phenyl]amine 849217-30-7P, [6-[(6,7-Dimethoxyquinolin-4-yl)oxy]-5-fluorobenzothiazol-2-yl]amine 849217-32-9P, 5-[[[4-(4-Amino-2-fluorophenoxy)-6-methoxyquinazolin-7-yl]oxy]methyl]hexahydrocyclopenta[c]pyrrole-2-carboxylic acid benzyl ester 849217-34-1P, 5-[[[4-[2-Fluoro-4-[3-(phenylacetyl)thioureido]phenoxy]-6-methoxyquinazolin-7-yl]oxy]methyl]hexahydrocyclopenta[c]pyrrole-2-carboxylic acid benzyl ester 849217-35-2P, 1-[3-Fluoro-4-[[6-methoxy-7-[(octahydrocyclopenta[c]pyrrol-5-yl)methoxy]quinazolin-4-yl]oxy]phenyl]-3-(phenylacetyl)thiourea dihydrobromide 849217-36-3P, 1-[3-Fluoro-4-[[6-methoxy-7-[(2-methyloctahydrocyclopenta[c]pyrrol-5-yl)methoxy]quinazolin-4-yl]oxy]phenyl]-3-(phenylacetyl)thiourea 849217-39-6P, (6,7-Dimethoxyquinazolin-4-yl)(2-fluoro-4-nitrophenyl)amine 849217-40-9P, N-(6,7-Dimethoxyquinazolin-4-yl)-2-fluorobenzene-1,4-diamine 849217-50-1P, Cyclopropane-1,1-dicarboxylic acid N-[3-fluoro-4-[(7-hydroxy-6-methoxyquinolin-4-yl)oxy]phenyl]amide N-(4-fluorophenyl)amide 849217-51-2P, Cyclopropane-1,1-dicarboxylic acid N-[4-[(7-benzyloxy-6-methoxyquinolin-4-yl)oxy]-3-fluorophenyl]amide N-(4-fluorophenyl)amide 849217-61-4P, N-[4-[(7-Benzyloxy-6-methoxyquinolin-4-yl)oxy]-3-fluorophenyl]-N'-(2-phenylethyl)ethanediamide 849217-62-5P, N-[3-Fluoro-4-[(7-hydroxy-6-methoxyquinolin-4-yl)oxy]phenyl]-N'-(2-phenylethyl)ethanediamide 849217-65-8P, Cyclopropane-1,1-dicarboxylic acid N-[4-[(7-benzyloxy-6-methoxyquinazolin-4-yl)oxy]-3-fluorophenyl]amide N-(4-fluorophenyl)amide 849217-66-9P, Cyclopropane-1,1-dicarboxylic acid N-[3-fluoro-4-[(7-hydroxy-6-methoxyquinazolin-4-yl)oxy]phenyl]amide N-(4-fluorophenyl)amide 849217-69-2P, 4-[[[4-[2-Fluoro-4-[[[1-(4-fluorophenylcarbamoyl)cyclopropyl]carbonyl]amino]phenoxy]-6-methoxyquinazolin-7-yl]oxy]methyl]piperidine-1-carboxylic acid tert-butyl ester 849217-71-6P, Cyclopropane-1,1-dicarboxylic acid N-[3-fluoro-4-[[6-methoxy-7-(piperidin-4-ylmethoxy)quinazolin-4-yl]oxy]phenyl]amide N-(4-fluorophenyl)amide trifluoroacetate

849217-77-2P, 1-[[4-[(6,7-Dimethoxyquinolin-4-yl)oxy]phenyl]carbamoyl]cyclopropanecarboxylic acid
849218-05-9P, (1S*,2R*)-N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)-2-methylcyclopropane-1,1-dicarboxamide
849218-07-1P, (1R*,2R*)-N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)-2-methylcyclopropane-1,1-dicarboxamide
849218-19-5P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)-1-(phenylmethyl)azetidine-3,3-dicarboxamide
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

IT 849217-29-4P 849217-31-8P, N-[6-[(6,7-Dimethoxyquinolin-4-yl)oxy]-5-fluorobenzothiazol-2-yl]-2-phenylacetamide
849217-37-4P, 1-[3-Fluoro-4-[[6-methoxy-7-[(2-methyloctahydrocyclopenta[c]pyrrol-5-yl)methoxy]quinazolin-4-yl]oxy]phenyl]-3-(phenylacetyl)thiourea hydrochloride
849217-38-5P, 1-[3-Fluoro-4-[[6-methoxy-7-[(2-methyloctahydrocyclopenta[c]pyrrol-5-yl)methoxy]quinazolin-4-yl]oxy]phenyl]-3-(phenylacetyl)thiourea acetate 849217-41-0P
849217-42-1P 849217-43-2P 849217-44-3P 849217-52-3P, N-[4-[[7-[[2-(Diethylamino)ethyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849217-63-6P, N-[3-Fluoro-4-[[6-methoxy-7-[3-(morpholin-4-yl)propoxy]quinolin-4-yl]oxy]phenyl]-N'-(2-phenylethyl)ethanediamide 849217-64-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide
849217-67-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849217-68-1P
849217-72-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide hydrochloride
849217-74-9P, N-[3-Fluoro-4-[[7-(methyloxy)-6-[[3-(morpholin-4-yl)propyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849217-76-1P, N-[3-Fluoro-4-[[7-(methyloxy)-6-[[(1-methylpiperidin-4-yl)methyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849217-78-3P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-[(4-fluorophenyl)methyl]cyclopropane-1,1-dicarboxamide 849217-79-4P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-[2-(piperidin-1-ylmethyl)phenyl]cyclopropane-1,1-dicarboxamide
849217-80-7P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-[2-(pyrrolidin-1-ylmethyl)phenyl]cyclopropane-1,1-dicarboxamide
849217-81-8P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-[3-(morpholin-4-ylmethyl)phenyl]cyclopropane-1,1-dicarboxamide
849217-82-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-[2-(morpholin-4-ylmethyl)phenyl]cyclopropane-1,1-dicarboxamide
849217-83-0P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-[3-(piperidin-1-ylmethyl)phenyl]cyclopropane-1,1-dicarboxamide
849217-84-1P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-[3-(pyrrolidin-1-ylmethyl)phenyl]cyclopropane-1,1-dicarboxamide
849217-85-2P, N-[4-[[6,7-Bis(methyloxy)-2-(methylthio)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849217-90-9P, N-[4-[[2-Amino-6,7-

bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849217-94-3P, N-[3-Fluoro-4-[[2-(methylamino)-6,7-bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849217-98-7P, N-[4-[[6-[[3-(Diethylamino)propyl]oxy]-7-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849218-00-4P, N-(4-Fluorophenyl)-N'-[4-[[2-methyl-6,7-bis(methyloxy)quinazolin-4-yl]oxy]phenyl]cyclopropane-1,1-dicarboxamide 849218-06-0P, (1S*,2R*)-N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)-2-methylcyclopropane-1,1-dicarboxamide hydrochloride 849218-12-8P 849218-13-9P, (2R*,3R*)-N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)-2,3-dimethylcyclopropane-1,1-dicarboxamide 849218-20-8P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)azetidine-3,3-dicarboxamide 849218-21-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)azetidine-3,3-dicarboxamide acetate 849218-22-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide hydrochloride 849218-25-3P 849218-26-4P 849218-27-5P, N-[4-[[7-[[2-(Diethylamino)ethyl]oxy]-6-(methyloxy)quinazolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)-2,2-dimethylcyclopropane-1,1-dicarboxamide 849218-29-7P, N-[3-(Aminomethyl)phenyl]-N'-[4-[[6,7-bis(methyloxy)quinolin-4-yl]oxy]phenyl]cyclopropane-1,1-dicarboxamide 849218-30-0P, N-[3-(Aminomethyl)phenyl]-N'-[4-[[6,7-bis(methyloxy)quinolin-4-yl]oxy]phenyl]cyclopropane-1,1-dicarboxamide trifluoroacetate 849218-32-2P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(piperazin-1-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849218-33-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(piperazin-1-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide bis(trifluoroacetate) 849218-34-4P, N-[[[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl](methyl)amino]carbonothioyl]-2-phenylacetamide 849218-35-5P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]imidazolidin-2-one 849218-36-6P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-3-(phenylmethyl)imidazolidin-2-one 849218-37-7P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-3-(phenylacetyl)imidazolidin-2-one 849218-38-8P, Ethyl 2-[[4-[[6,7-bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]amino]-2-oxoacetate 849218-39-9P, N'-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N-methyl-N-(2-phenylethyl)sulfamide 849218-40-2P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-3-(phenylmethyl)-1,2,4-oxadiazol-5-amine 849218-41-3P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]piperidin-2-one 849218-42-4P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(phenylmethyl)ethanediamide 849218-43-5P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-4-phenyl-1,3-thiazol-2-amine 849218-44-6P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-1-phenylmethanesulfonamide 849218-45-7P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-2-phenylethanesulfonamide 849218-46-8P, 4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluoro-N-(phenylmethyl)benzenesulfonamide 849218-47-9P, 4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluoro-N-methyl-N-(phenylmethyl)benzenesulfonamide 849218-48-0P,

4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluoro-N-(2-phenylethyl)benzenesulfonamide 849218-49-1P, 4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluoro-N-methyl-N-(2-phenylethyl)benzenesulfonamide 849218-50-4P, 4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluoro-N-(3-phenylpropyl)benzenesulfonamide 849218-51-5P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]pyrrolidin-2-one 849218-52-6P, 4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl (phenylmethyl)carbamate 849218-53-7P, 4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl (2-phenylethyl)carbamate 849218-54-8P, 4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluoro-N-methyl-N-(3-phenylpropyl)benzenesulfonamide 849218-55-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-phenylethanediamide 849218-56-0P, 4-[[6,7-Bis(methyloxy)quinolin-4-yl]amino]-N-(3-phenylpropyl)benzamide 849218-57-1P 849218-58-2P, 4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluoro-N-[2-(phenyloxy)ethyl]benzenesulfonamide 849218-59-3P, N-[4-[[6,7-Bis(methoxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N-(3-phenylpropylsulfonyl)-3-phenylpropane-1-sulfonamide 849218-60-6P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-3-phenylpropane-1-sulfonamide 849218-61-7P, N'-[[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]sulfonyl]-N-phenylglycinamide 849218-62-8P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]pyridin-3-yl]-2-phenylacetamide 849218-63-9P, 6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-1,3-benzothiazol-2-amine 849218-64-0P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[2-(morpholin-4-yl)ethyl]ethanediamide 849218-65-1P, 1,1-Dimethylethyl [2-[[4-[[6,7-bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]amino]-2-oxoethyl](phenylmethyl)carbamate 849218-66-2P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(phenylmethyl)glycinamide 849218-67-3P, N'-Acetyl-N-[4-[[6,7-bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(phenylmethyl)glycinamide 849218-68-4P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-1,3-benzothiazol-2-yl]-2-phenylacetamide 849218-69-5P, 1,1-Dimethylethyl [2-[[6-[[6,7-bis(methyloxy)quinolin-4-yl]oxy]pyridin-3-yl]amino]-2-oxoethyl](phenylmethyl)carbamate 849218-70-8P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]pyridin-3-yl]-N'-(phenylmethyl)glycinamide 849218-71-9P, N'-Acetyl-N-[6-[[6,7-bis(methyloxy)quinolin-4-yl]oxy]pyridin-3-yl]-N'-(phenylmethyl)glycinamide 849218-72-0P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]pyridin-3-yl]-3-phenylpropanamide 849218-73-1P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]pyridin-3-yl]-4-phenylbutanamide 849218-74-2P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]pyridin-3-yl]-N'-methyl-N'-(phenylmethyl)glycinamide 849218-75-3P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[2-[4-(methyloxy)phenyl]ethyl]ethanediamide 849218-76-4P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-methyl-N'-(phenylmethyl)glycinamide 849218-77-5P, N-[[[4-[[6,7-Bis(methyloxy)quinolin-4-yl]amino]phenyl]amino]carbonothioyl]-2-phenylacetamide 849218-78-6P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-1,3-benzothiazol-2-yl]-3-phenylpropanamide 849218-79-7P, N-[[[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]amino]carbonothioyl]-2-phenylacetamide 849218-80-0P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(2,3-dihydro-1H-inden-1-yl)ethanediamide 849218-81-1P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(2,3-dihydro-1H-inden-2-yl)ethanediamide 849218-82-2P,

N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(1,2,3,4-tetrahydronaphthalen-1-yl)ethanediamide 849218-83-3P, N'-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N-(2-phenylethyl)-N-(phenylmethyl)sulfamide 849218-84-4P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(trifluoroacetyl)glycinamide 849218-85-5P, N-[2-[[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]amino]-2-oxoethyl]benzamide 849218-86-6P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)propanediamide 849218-87-7P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-((2S)-1,2,3,4-tetrahydronaphthalen-2-yl)ethanediamide 849218-88-8P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[2-(4-methylphenyl)ethyl]ethanediamide 849218-89-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(2-phenylpropyl)ethanediamide 849218-90-2P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[2-(4-chlorophenyl)ethyl]ethanediamide 849218-91-3P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N,N'-bis(phenylmethyl)sulfamide 849218-92-4P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N,N'-bis(2-phenylethyl)sulfamide 849218-93-5P, Ethyl 2-[[6-[[6,7-bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]amino]-2-oxoacetate 849218-94-6P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(2-phenylethyl)ethanediamide 849218-95-7P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(4-fluorophenyl)propanediamide 849218-96-8P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-((2R)-1,2,3,4-tetrahydronaphthalen-2-yl)ethanediamide 849218-97-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[2-(1-methylpyrrolidin-2-yl)ethyl]ethanediamide 849218-98-0P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[2-(phenyloxy)ethyl]ethanediamide 849218-99-1P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-3-[2-hydroxy-1-(phenylmethyl)ethyl]urea 849219-00-7P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-3-[(4-methylphenyl)sulfonyl]-4-(phenylmethyl)imidazolidin-2-one 849219-01-8P, N'-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N-methyl-N-(2-phenylethyl)ethanediamide 849219-02-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[[3-(trifluoromethyl)phenyl]methyl]ethanediamide 849219-03-0P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[2-[3-(trifluoromethyl)phenyl]ethyl]ethanediamide 849219-04-1P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-3-oxo-4-phenylbutanamide 849219-05-2P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-2-[3-(trifluoromethyl)phenyl]acetamide 849219-06-3P, 6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-N-[2-(phenyloxy)ethyl]-1,3-benzothiazol-2-amine 849219-07-4P, 6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-N-[2-(piperidin-1-yl)ethyl]-1,3-benzothiazol-2-amine 849219-08-5P, 6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-N-methyl-N-(2-phenylethyl)-1,3-benzothiazol-2-amine 849219-09-6P, 6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-N-[2-(pyrrolidin-1-yl)ethyl]-1,3-benzothiazol-2-amine 849219-10-9P, 6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-N-[[3-(trifluoromethyl)phenyl]methyl]-1,3-benzothiazol-2-amine 849219-11-0P, 6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-N-[2-[3-(trifluoromethyl)phenyl]ethyl]-1,3-benzothiazol-2-amine 849219-12-1P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-[3-(trifluoromethyl)phenyl]propanediamide

849219-13-2P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-1,3-benzothiazol-2-yl]-2-[3-(trifluoromethyl)phenyl]acetamide 849219-14-3P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[[3-(trifluoromethyl)phenyl]methyl]glycinamide 849219-15-4P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(2-phenylethyl)glycinamide 849219-16-5P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[2-[3-(trifluoromethyl)phenyl]ethyl]glycinamide 849219-17-6P, 1,1-Dimethylethyl [2-[[6-[[6,7-bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]amino]-2-oxoethyl](phenylmethyl)carbamate 849219-18-7P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(phenylmethyl)glycinamide 849219-19-8P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-1,3-benzothiazol-2-yl]-2-[3,5-bis(trifluoromethyl)phenyl]acetamide 849219-20-1P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-1,3-benzothiazol-2-yl]-2-[2-chloro-5-(trifluoromethyl)phenyl]acetamide 849219-21-2P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(1,2,3,4-tetrahydroisoquinolin-1-ylmethyl)ethanediamide 849219-22-3P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[(2-methyl-1,2,3,4-tetrahydroisoquinolin-1-yl)methyl]ethanediamide 849219-23-4P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-methyl-N'-[[3-(trifluoromethyl)phenyl]methyl]glycinamide 849219-24-5P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-methyl-N'-[2-[3-(trifluoromethyl)phenyl]ethyl]glycinamide 849219-25-6P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-methyl-N'-(2-phenylethyl)glycinamide 849219-26-7P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-4-(phenylmethyl)imidazolidin-2-one 849219-27-8P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]pyridazin-3-yl]-N'-(4-fluorophenyl)propanediamide 849219-28-9P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(2-chlorophenyl)propanediamide 849219-29-0P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(3-chlorophenyl)propanediamide 849219-30-3P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-methyl-N'-(phenylmethyl)glycinamide 849219-31-4P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(4-chlorophenyl)propanediamide 849219-32-5P, (2E)-N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-2-[(methyloxy)imino]propanamide 849219-33-6P, (2E)-N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-2-[(ethyloxy)imino]propanamide 849219-34-7P, (2E)-N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-2-[[(phenylmethyl)oxy]imino]propanamide 849219-35-8P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-1-(phenylmethyl)prolinamide 849219-36-9P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-3-[(4-methylphenyl)sulfonyl]-4-(phenylmethyl)imidazolidin-2-one 849219-37-0P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-4-(phenylmethyl)imidazolidin-2-one 849219-38-1P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-4-(phenylmethyl)-4,5-dihydro-1,3-oxazol-2-amine 849219-39-2P, 6,7-Bis(methyloxy)-4-[[4-[4-(phenylmethyl)piperazin-1-yl]phenyl]oxy]quinoline 849219-40-5P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-4-(phenylmethyl)piperazin-2-one 849219-41-6P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-(phenylmethyl)alaninamide 849219-42-7P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-methyl-N'-(phenylmethyl)alaninamide 849219-43-8P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-

(phenylmethyl)leucinamide 849219-44-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-methyl-N'-(phenylmethyl)leucinamide 849219-45-0P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-(phenylmethyl)valinamide 849219-47-2P, N-[5-Chloro-6-[[6-(methyloxy)-4-[(piperidin-4-ylmethyl)oxy]quinolin-7-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)propanediamide 849219-48-3P, 1-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-4-(phenylmethyl)tetrahydropyrimidin-2(1H)-one 849219-49-4P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-(2-phenylethyl)ethanediamide 849219-50-7P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849219-51-8P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849219-52-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-methyl-N'-(phenylmethyl)valinamide 849219-53-0P, (2E)-N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-2-[(phenyloxy)imino]propanamide 849219-54-1P, (2E)-N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-2-phenyl-2-[[(phenylmethyl)oxy]imino]ethanamide 849219-55-2P, 6,7-Bis(methyloxy)-4-[[4-[4-(phenylmethyl)piperidin-1-yl]phenyl]oxy]quinoline 849219-56-3P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[[2-(1-methylethyl)-1,2,3,4-tetrahydroisoquinolin-1-yl]methyl]ethanediamide 849219-57-4P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[(2-ethyl-1,2,3,4-tetrahydroisoquinolin-1-yl)methyl]ethanediamide 849219-58-5P, 1,1-Dimethylethyl 4-[[[4-[[3-chloro-5-[[3-[(4-fluorophenyl)amino]-3-oxopropanoyl]amino]pyridin-2-yl]oxy]-6-(methyloxy)quinolin-7-yl]oxy]methyl]piperidine-1-carboxylate 849219-59-6P, N-[5-Chloro-6-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)propanediamide 849219-60-9P, N-[5-Chloro-6-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)propanediamide 849219-61-0P, N-[4-[[7-[[3-(Diethylamino)propyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(2-phenylethyl)ethanediamide 849219-62-1P , N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(piperidin-1-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(2-phenylethyl)ethanediamide 849219-63-2P, N-[4-[[7-[[2-(Diethylamino)ethyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(2-phenylethyl)ethanediamide 849219-64-3P, N'-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N-methyl-N-(2-phenylethyl)ethanediamide 849219-65-4P 849219-66-5P, 2-(3,4-Dihydroisoquinolin-2(1H)-yl)-N-[3-fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-2-(oxo)acetamide 849219-67-6P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-2-oxo-2-(3-phenylpyrrolidin-1-yl)acetamide 849219-68-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-2-oxo-2-(2-phenylmorpholin-4-yl)acetamide 849219-69-8P, N-[2-(Dimethylamino)-2-phenylethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-70-1P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-(2-oxo-2-phenylethyl)ethanediamide 849219-71-2P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-2,2-

difluoro-N'-(4-fluorophenyl)propanediamide 849219-72-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(phenylmethyl)ethanediamide 849219-73-4P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(2-fluorophenyl)ethyl]ethanediamide 849219-74-5P, N-[2-(3-Chlorophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-75-6P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-[2-(methyloxy)phenyl]ethyl]ethanediamide 849219-76-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(pyridin-3-yl)ethyl]ethanediamide 849219-77-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-(phenylmethyl)ethanediamide 849219-78-9P, N-[2-[2,5-Bis(methyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-79-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-[2-(trifluoromethyl)phenyl]ethyl]ethanediamide 849219-80-3P, N-[2-[2-(Ethyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-81-4P, N-[2-(2,4-Dimethylphenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-82-5P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(1S)-2-(4-methylphenyl)-1-phenylethyl]ethanediamide 849219-83-6P, N-[2-(4-Chlorophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-84-7P, [[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]amino](oxo)acetic acid 849219-85-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(3-fluorophenyl)ethyl]ethanediamide 849219-86-9P, N-[2-(2-Chlorophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-87-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-[3-(methyloxy)phenyl]ethyl]ethanediamide 849219-88-1P, N-(1,2-Diphenylethyl)-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-89-2P, N-[2-(2,4-Dichlorophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-90-5P, N-[2-[3,4-Bis(methyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-91-6P, N-[2-(4-Ethylphenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-92-7P, N-[2-[4-(Ethyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-93-8P, N-[2-[4-(Ethyloxy)-3-(methyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849219-94-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-[4-(phenyloxy)phenyl]ethyl]ethanediamide 849219-95-0P, N-[2-[3-(Ethyloxy)-4-(methyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-

yl]oxy]phenyl]ethanediamide 849219-96-1P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(pyridin-2-yl)ethyl]ethanediamide 849219-97-2P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(pyridin-4-yl)ethyl]ethanediamide 849219-98-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(4-fluorophenyl)ethyl]ethanediamide 849219-99-4P, N-[2-(2-Bromophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-00-4P, N-[2-(2-Chloro-6-fluorophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-01-5P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(2R)-2-phenylpropyl]ethanediamide 849220-02-6P, N-(2,3-Dihydro-1H-inden-1-yl)-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-03-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(2-methylpropyl)ethanediamide 849220-04-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(3-methylbutyl)ethanediamide 849220-05-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-[(2R)-2-phenylpropyl]ethanediamide 849220-06-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(2-phenylpropyl)ethanediamide 849220-07-1P, N-(2,3-Dihydro-1H-inden-2-yl)-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-08-2P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(1R)-1-phenylethyl]ethanediamide 849220-09-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(1S)-1-phenylethyl]ethanediamide 849220-10-6P, N-[2-(3-Bromophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-11-7P, N-[2-(2,6-Dichlorophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-12-8P, N-[2-(1,3-Benzodioxol-5-yl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-13-9P, N-[5-Chloro-6-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

IT 849220-14-0P, N-[2-[3-Bromo-4-(methyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-15-1P, N-[2-[3,5-Bis(methyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-16-2P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(2-methylphenyl)ethyl]ethanediamide 849220-17-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-

ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(3-methylphenyl)ethyl]ethanediamide 849220-18-4P, N-[2-[3-(Ethyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-19-5P, N-[2-(3,4-Dimethylphenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-20-8P, N-[2-(2,5-Dimethylphenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-21-9P, N-[2-[3-Chloro-4-(propyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-22-0P, N-[2-[4-(Butyloxy)-3-chlorophenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-23-1P, N-[2-[4-(1,1-Dimethylethyl)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-24-2P, N-[2-[4-(Aminosulfonyl)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-25-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-[4-hydroxy-3-(methyloxy)phenyl]ethyl]ethanediamide 849220-26-4P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-[3-hydroxy-4-(methyloxy)phenyl]ethyl]ethanediamide 849220-27-5P, N-[(2,4-Dichlorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-28-6P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[4-fluoro-2-(trifluoromethyl)phenyl]methyl]ethanediamide 849220-29-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(1R)-1-(4-methylphenyl)ethyl]ethanediamide 849220-30-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[3-fluoro-4-(trifluoromethyl)phenyl]methyl]ethanediamide 849220-31-1P, N-[(3-Chloro-4-fluorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-32-2P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(1S)-1-[3-(methyloxy)phenyl]ethyl]ethanediamide 849220-33-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(1R)-1-(naphthalen-2-yl)ethyl]ethanediamide 849220-34-4P, N-[[4-Chloro-3-(trifluoromethyl)phenyl]methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-35-5P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(1S)-1-(4-methylphenyl)ethyl]ethanediamide 849220-36-6P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[6-(trifluoromethyl)pyridin-3-yl]methyl]ethanediamide 849220-37-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(2-methylphenyl)methyl]ethanediamide 849220-38-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(3-methylphenyl)methyl]ethanediamide 849220-39-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[4-fluoro-3-(trifluoromethyl)phenyl]methyl]ethanediamide 849220-40-2P,

N-[(3,5-Dichlorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-41-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-((1R)-1,2,3,4-tetrahydronaphthalen-1-yl)ethanediamide 849220-42-4P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-((1S)-1,2,3,4-tetrahydronaphthalen-1-yl)ethanediamide 849220-43-5P, N-Cyclopentyl-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-44-6P, N-[1-(4-Bromophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-45-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(2-fluorophenyl)methyl]ethanediamide 849220-46-8P, N-[2-(3,4-Dichlorophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-47-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(4-fluorophenyl)methyl]ethanediamide 849220-48-0P, N-[(2,3-Difluorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-49-1P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(phenyloxy)ethyl]ethanediamide 849220-50-4P, N-(2,2-Diphenylethyl)-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-51-5P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-[4-(methyloxy)phenyl]ethyl]ethanediamide 849220-52-6P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-(2-phenylpropyl)ethanediamide 849220-53-7P, N-[2-(4-Bromophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-54-8P, N-[4-[[7-[[(1-Ethylpiperidin-4-yl)methyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-2-oxo-2-(2-phenylmorpholin-4-yl)acetamide 849220-55-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[3-fluoro-5-(trifluoromethyl)phenyl]methyl]ethanediamide 849220-56-0P, N-[(3,5-Difluorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-57-1P, N-[[2-Chloro-5-(trifluoromethyl)phenyl]methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-58-2P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-[2-(dimethylamino)-2-phenylethyl]ethanediamide 849220-59-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[4-(methyloxy)phenyl]methyl]ethanediamide 849220-60-6P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[4-(trifluoromethyl)phenyl]methyl]ethanediamide 849220-61-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[3-(methyloxy)phenyl]methyl]ethanediamide 849220-62-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[3-(trifluoromethyl)phenyl]methyl]ethanediamide 849220-63-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[3-

[(trifluoromethyl)oxy]phenyl]methyl]ethanediamide 849220-64-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[2-(methyloxy)phenyl]methyl]ethanediamide 849220-65-1P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[2-(trifluoromethyl)phenyl]methyl]ethanediamide 849220-66-2P, N-[(3-Chlorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-67-3P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[2-[(trifluoromethyl)oxy]phenyl]methyl]ethanediamide 849220-68-4P, N-[(2-Chlorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-69-5P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[4-[(trifluoromethyl)oxy]phenyl]methyl]ethanediamide 849220-70-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-[[4-(methyloxy)phenyl]methyl]ethanediamide 849220-71-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-[[4-(trifluoromethyl)phenyl]methyl]ethanediamide 849220-72-0P, N-[4-[[7-[(Azetidin-3-ylmethyl)oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(2-phenylethyl)ethanediamide 849220-73-1P, N-[3-Fluoro-4-[[7-[[(1-methylazetidin-3-yl)methyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-(2-phenylethyl)ethanediamide 849220-74-2P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-(2-hydroxy-2-phenylethyl)ethanediamide 849220-75-3P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(2,4-difluorophenyl)propanediamide 849220-76-4P, N'-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N-(4-fluorophenyl)-N-methylpropanediamide 849220-77-5P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-((1R)-1-phenylpropyl)ethanediamide 849220-78-6P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-((1S)-1-phenylpropyl)ethanediamide 849220-80-0P, N-[(3,4-Difluorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-82-2P, N-[(2,6-Difluorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-84-4P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(4-fluorophenyl)ethyl]ethanediamide 849220-85-5P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-phenylethanediamide 849220-87-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-(3-fluorophenyl)ethanediamide 849220-88-8P, N-(4-Chloro-3-fluorophenyl)-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-89-9P, N-[3,4-Bis(methyloxy)phenyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-90-2P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-(3-methylbutyl)ethanediamide 849220-91-3P, N-(3,3-Dimethylbutyl)-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-92-4P, N-[5-Chloro-6-[[6-

(methyloxy)-7-[[3-(piperidin-1-yl)propyl]oxy]quinolin-4-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)propanediamide 849220-93-5P, N-[5-Chloro-6-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)propanediamide 849220-94-6P, N-[5-Chloro-6-[[7-[[3-(diethylamino)propyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)propanediamide 849220-95-7P, N-[(4-Chlorophenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-96-8P, N-[[3,5-Bis(methyloxy)phenyl]methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-97-9P, N-[(4-Butylphenyl)methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849220-98-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(4-methylphenyl)ethyl]ethanediamide 849220-99-1P, N-[[3,5-Bis(trifluoromethyl)phenyl]methyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849221-00-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(pyrazin-2-yl)methyl]ethanediamide 849221-01-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(pyridin-2-yl)methyl]ethanediamide 849221-02-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinazolin-4-yl]oxy]phenyl]-N'-(2-phenylethyl)ethanediamide 849221-03-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(2-phenylethyl)ethanediamide 849221-04-1P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[2-fluoro-3-(trifluoromethyl)phenyl]methyl]ethanediamide 849221-05-2P, N-[2-[2-Bromo-6-(methyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849221-06-3P, N-[2-[3,4-Bis(methyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N-methylethanediamide 849221-07-4P, N-[2-[5-Bromo-2-(methyloxy)phenyl]ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849221-08-5P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[[2-fluoro-5-(trifluoromethyl)phenyl]methyl]ethanediamide 849221-09-6P, N-[5-Chloro-6-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-10-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[1-(4-fluorophenyl)ethyl]ethanediamide 849221-11-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[(1S)-2-oxo-1-(phenylmethyl)-2-(pyrrolidin-1-yl)ethyl]ethanediamide 849221-12-1P, N-[2-(4-Aminophenyl)ethyl]-N'-[3-fluoro-4-[[6-(methyloxy)-7-[[(piperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849221-13-2P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-2-oxo-2-[4-(phenylmethyl)piperidin-1-yl]acetamide 849221-14-3P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)propanediamide 849221-15-4P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(3-fluorophenyl)propanediamide 849221-16-5P, N-[6-[[6,7-

Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-phenylpropanediamide 849221-17-6P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(4-fluorophenyl)-2,2-dimethylpropanediamide 849221-18-7P, N-Ethyl-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849221-19-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-(1-methylethyl)ethanediamide 849221-20-1P, N-Butyl-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849221-21-2P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(methyloxy)ethyl]ethanediamide 849221-22-3P, N-(Cyclopropylmethyl)-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]ethanediamide 849221-23-4P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N'-[2-(morpholin-4-yl)ethyl]ethanediamide 849221-24-5P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-2-oxo-2-(pyrrolidin-1-yl)acetamide 849221-25-6P, N-Ethyl-N'-[3-fluoro-4-[[6-(methyloxy)-7-[(piperidin-4-ylmethyl)oxy]quinolin-4-yl]oxy]phenyl]-N-methylethanediamide 849221-26-7P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(phenylmethyl)cyclopropane-1,1-dicarboxamide 849221-27-8P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-(2-phenylethyl)cyclopropane-1,1-dicarboxamide 849221-28-9P, N-[4-[(7-Chloroquinolin-4-yl)oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-29-0P, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloropyridin-3-yl]-N'-phenylcyclopropane-1,1-dicarboxamide **849221-30-3P**, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-2-methylpyridin-3-yl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-31-4P, N-[4-[[7-[[2-(Diethylamino)ethyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849221-32-5P, N-[4-[(7-Chloroquinolin-4-yl)oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-33-6P, N-[5-Chloro-6-[[6-(methyloxy)-7-[(phenylmethyl)oxy]quinolin-4-yl]oxy]pyridin-3-yl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-34-7P, N-[4-[[6,7-Bis(methyloxy)quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-35-8P, N-[4-[[6,7-Bis(methyloxy)quinazolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-36-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(piperidin-1-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-37-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(piperidin-1-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849221-38-1P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-39-2P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-2-methylphenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide **849221-40-5P**, N-(4-Fluorophenyl)-N'-[2-methyl-6-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]pyridin-3-yl]cyclopropane-1,1-dicarboxamide 849221-41-6P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide **849221-42-7P**, N-[6-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-chloro-2-methylpyridin-3-yl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-43-8P, N-[3-Fluoro-4-[[7-(methyloxy)-6-[[3-

(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-44-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-3,5-difluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-45-0P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-2,5-difluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-46-1P, N-[5-Fluoro-2-methyl-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-47-2P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-2,3,5-trifluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-48-3P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-5-fluoro-2-methylphenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-49-4P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-2-chloro-5-methylphenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-50-7P, N-(4-Fluorophenyl)-N'-[2-methyl-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]cyclopropane-1,1-dicarboxamide 849221-51-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(4-methylpiperazin-1-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-52-9P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[(1-methylpiperidin-4-yl)methyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-53-0P, N-(4-Fluorophenyl)-N'-[4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]cyclopropane-1,1-dicarboxamide 849221-54-1P, N-[4-[[7-[[3-(Diethylamino)propyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-55-2P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]-2-chloro-5-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-56-3P, N-[4-[[6-[[2-(Diethylamino)ethyl]oxy]-7-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-57-4P, 1,1-Dimethylethyl 4-[3-[[4-[[2-fluoro-4-[[[1-[[(4-fluorophenyl)amino]carbonyl]cyclopropyl]carbonyl]amino]phenyl]oxy]-6-(methyloxy)quinolin-7-yl]oxy]propyl]piperazine-1-carboxylate 849221-58-5P 849221-59-6P 849221-60-9P, N-[4-[[7-[[3-(Diethylamino)propyl]oxy]-6-(methyloxy)quinazolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-61-0P, N-[4-[[7-[[3-(4-Acetylpiperazin-1-yl)propyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-62-1P 849221-63-2P 849221-64-3P 849221-65-4P 849221-66-5P, N-[3-Fluoro-4-[[7-[[3-[4-(1-methylethyl)piperazin-1-yl]propyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849221-67-6P 849221-68-7P 849221-69-8P 849221-70-1P 849221-71-2P, N-[4-[[7-[[2-(Diethylamino)ethyl]oxy]-6-(methyloxy)quinazolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849221-72-3P 849221-73-4P 849221-74-5P 849221-75-6P 849221-76-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849221-77-8P 849221-78-9P, N-[4-[[7-[[3-(Diethylamino)propyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)-2,2-dimethylcyclopropane-1,1-dicarboxamide 849221-79-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)-2,2-dimethylcyclopropane-1,1-dicarboxamide 849221-80-3P, N-[4-[[7-[[2-(Diethylamino)ethyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)-2,2-

dimethylcyclopropane-1,1-dicarboxamide 849221-81-4P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(morpholin-4-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)-2,2-dimethylcyclopropane-1,1-dicarboxamide 849221-82-5P, N-[4-[[7-[[3-(Diethylamino)propyl]oxy]-6-(methyloxy)quinazolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)-2,2-dimethylcyclopropane-1,1-dicarboxamide 849221-83-6P, N-[4-[[7-[[3-(Diethylamino)propyl]oxy]-6-(methyloxy)quinazolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849221-84-7P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(4-methylpiperazin-1-yl)propyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849221-85-8P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(piperazin-1-yl)propyl]oxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849221-86-9P, N-[4-[[7-[[3-(Diethylamino)propyl]oxy]-6-(methyloxy)quinolin-4-yl]oxy]-3-fluorophenyl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849221-87-0P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[3-(4-methylpiperazin-1-yl)propyl]oxy]quinolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclobutane-1,1-dicarboxamide 849221-88-1P 849221-89-2P 849221-90-5P 849221-91-6P 849221-92-7P 849221-93-8P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-[2-(morpholin-4-yl)ethyl]cyclopropane-1,1-dicarboxamide 849221-94-9P, N-[4-[[6,7-Bis(methyloxy)quinolin-4-yl]oxy]phenyl]-N'-phenylcyclopropane-1,1-dicarboxamide 849221-95-0P, 4-[(2-Amino-1,3-benzothiazol-6-yl)oxy]-6,7-bis(methyloxy)-1-(2-oxo-2-phenylethyl)quinolinium 849221-96-1P, N-[3-Fluoro-4-[[6-(methyloxy)-7-[[2-methyloctahydrocyclopenta[c]pyrrol-5-yl]methoxy]quinazolin-4-yl]oxy]phenyl]-N'-(4-fluorophenyl)cyclopropane-1,1-dicarboxamide 849482-11-7P, N-[[[3-Fluoro-4-[[6-(methyloxy)-7-[[[(3aR,6aS)-octahydrocyclopenta[c]pyrrol-5-yl]methyl]oxy]quinazolin-4-yl]oxy]phenyl]amino]carbonothioyl]-2-phenylacetamide 849482-12-8P 849482-13-9P 849482-14-0P 849482-15-1P 849482-16-2P 849482-17-3P 849485-12-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

IT 137632-03-2, c-Met **tyrosine kinase** 138359-29-2, c-Kit **tyrosine kinase** 144638-77-7 147230-71-5, Flt-3 kinase 150977-45-0, KDR kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitors**; preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

IT 849217-99-8P, Cyclopropane-1,1-dicarboxylic acid N-[3-fluoro-4-[(6-hydroxy-7-methoxyquinolin-4-yl)oxy]phenyl]amide N-(4-fluorophenyl)amide
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

IT 62-53-3, Phenylamine, reactions 64-04-0, Phenethylamine 86-99-7, 7-Chloro-4-hydroxyquinoline 100-02-7, 4-Nitrophenol, reactions 100-37-8, 2-(Diethylamino)ethanol 100-39-0, Benzyl

bromide 100-46-9, Benzylamine, reactions 100-51-6, Benzyl alcohol, reactions 103-80-0, Phenylacetyl chloride 106-89-8, Epichlorohydrin, reactions 109-94-4, Ethyl formate 123-30-8, 4-Aminophenol 140-75-0, 4-Fluorobenzylamine 369-34-6, 1,2-Difluoro-4-nitrobenzene 369-35-7, (2-Fluoro-4-nitrophenyl)amine 371-40-4, 4-Fluoroaniline 399-96-2, 4-Amino-2-fluorophenol 403-19-0, 2-Fluoro-4-nitrophenol 498-02-2 598-10-7, 1,1-Cyclopropanedicarboxylic acid 622-93-5, N-(3-Hydroxypropyl)diethylamine 869-24-9, N-(2-Chloroethyl)diethylamine hydrochloride 2133-40-6 4441-30-9, 4-(3-Hydroxypropyl)morpholine 4548-45-2, 2-Chloro-5-nitropyridine 4755-77-5, Ethyl oxalyl chloride 5445-51-2, 1,1-Cyclobutanedicarboxylic acid 6315-89-5, 3,4-Dimethoxyaniline 6941-54-4 13425-93-9, 6,7-Dimethoxyquinolin-4-ol 13790-39-1, 4-Chloro-6,7-dimethoxyquinazoline 16684-31-4 18162-48-6, tert-Butyldimethylsilyl chloride 18600-42-5, 4-Nitrobenzylamine hydrochloride 23356-96-9, (S)-(+)-Prolinol 26759-46-6, 2-Amino-4,5-dimethoxybenzoic acid methyl ester 29313-32-4, Phenylacetyl isothiocyanate 51388-20-6, 4-Benzyloxyaniline hydrochloride 57616-74-7, N-(3-Chloropropyl)morpholine hydrochloride 76211-05-7, Ethyl octahydro-2H-quinolizine-3-carboxylate 99380-85-5, ((4R)-1,3-Thiazolidin-4-yl)methanol 100981-05-3, 5-[Bis(methylsulfanyl)methylene]-2,2-dimethyl-[1,3]dioxane-4,6-dione 106014-87-3, 1-Benzylazetidine-3,3-dicarboxylic acid 112018-06-1 127285-54-5, 6,7-Dimethoxy-1H-quinolin-4-one 139228-12-9 146231-54-1 157904-95-5 161975-39-9 162364-72-9, 7-Benzyloxy-4-chloro-6-methoxyquinazoline 179688-01-8, 7-Benzyloxy-6-methoxy-3H-quinazolin-4-one 190728-25-7, [4-[(6,7-Dimethoxyquinolin-4-yl)oxy]phenyl]amine 205448-29-9, 7-Benzyloxy-6-methoxy-1H-quinolin-4-one 211053-49-5, ((3R)-Morpholin-3-yl)methanol 347161-74-4, [4-[(6,7-Dimethoxyquinolin-4-yl)oxy]-3-fluorophenyl]amine 479690-04-5 650577-55-2 650578-72-6, 1,1-Dimethylethyl (3-endo)-3-(2-hydroxyethyl)-8-azabicyclo[3.2.1]octane-8-carboxylate 767587-88-2 849217-25-0, 5-[[(Methylsulfonyl)oxy]methyl]hexahydrocyclopenta[c]pyrrole-2-carboxylic acid benzyl ester 849217-33-0, 5-[[(4-Chloro-6-methoxyquinazolin-7-yl)oxy]methyl]hexahydrocyclopenta[c]pyrrole-2-carboxylic acid benzyl ester 849217-75-0, Cyclopropane-1,1-dicarboxylic acid N-[3-fluoro-4-[(6-hydroxy-7-methoxyquinazolin-4-yl)oxy]phenyl]amide N-(4-fluorophenyl)amide 849218-14-0, trans-2,3-Dimethylcyclopropane-1,1-dicarboxylic acid diethyl ester 849218-24-2, Cyclopropane-1,1-dicarboxylic acid N-[3-fluoro-4-[[6-methoxy-7-(piperidin-4-ylmethoxy)quinolin-4-yl]oxy]phenyl]amide N-(4-fluorophenyl)amide trifluoroacetate 849218-28-6, 2,2-Dimethylcyclopropane-1,1-dicarboxylic acid N-[3-fluoro-4-[(7-hydroxy-6-methoxyquinazolin-4-yl)oxy]phenyl]amide N-(4-fluorophenyl)amide 849482-10-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

IT 1835-11-6P, 1-(4-Benzyloxy-3-methoxyphenyl)ethanone 27203-18-5P, (Octahydro-2H-quinolizin-3-yl)methanol 35241-23-7P, 6,7-Dimethoxy-2-methylquinazolin-4-ol 50377-49-6P, 4-Chloro-6,7-dimethoxy-2-methylquinazoline 63190-57-8P, 2-Acetylamino-4,5-dimethoxybenzoic acid methyl ester 75665-73-5P, 1-(2-Amino-4-benzyloxy-5-methoxyphenyl)ethanone 75665-88-2P, 1-(4-Benzyloxy-5-methoxy-2-nitrophenyl)ethanone 76243-24-8P, 1-Benzyloxy-2-fluoro-4-nitrobenzene 94838-55-8P, (4-Aminobenzyl)carbamic acid tert-butyl ester 94838-58-1P, (4-Nitrobenzyl)carbamic acid tert-butyl ester 163485-46-9P,

Ethyl 2-[(4-benzyloxy-3-fluorophenyl)amino]-2-oxoacetate 168268-00-6P, 4-Benzyloxy-3-fluoroaniline 194151-77-4P 286371-49-1P, 7-Benzyloxy-4-chloro-6-methoxyquinoline 479690-24-9P 650577-49-4P 650577-50-7P 650577-54-1P 650577-58-5P 650577-59-6P 650577-60-9P 650577-61-0P 650577-65-4P 650577-70-1P 650577-72-3P, (3S,8AS)-3-(Chloromethyl)hexahydro-1H-pyrrolo[2,1-c][1,4]oxazine 650577-84-7P, ((3S,8AS)-Hexahydro-1H-pyrrolo[2,1-c][1,4]oxazin-3-yl)methyl acetate 650577-85-8P, [(3S,8AS)-Hexahydro-1H-pyrrolo[2,1-c][1,4]oxazin-3-yl]methanol 650577-97-2P, (3S,8AS)-3-(Hydroxymethyl)hexahydropyrrolo[1,2-a]pyrazin-1(2H)-one 650577-98-3P, Methyl 1-[(2S)-3-hydroxy-2-[[[(phenylmethyl)oxy]carbonyl]amino]propyl]-L-prolinate 650577-99-4P, (3S,8AS)-3-[[[(1,1-Dimethylethyl)dimethylsilyl]oxy]methyl]hexahydropyrrolo[1,2-a]pyrazin-1(2H)-one 650578-00-0P, (3S,8AS)-3-[[[(1,1-Dimethylethyl)dimethylsilyl]oxy]methyl]-2-methylhexahydropyrrolo[1,2-a]pyrazin-1(2H)-one 650578-04-4P 650578-12-4P 650578-43-1P, (3R,9AS)-3-(chloromethyl)hexahydro-1H-[1,4]oxazino[3,4-c][1,4]oxazine 650578-46-4P, ((3R,9AS)-hexahydro-1H-[1,4]oxazino[3,4-c][1,4]oxazin-3-yl)methyl acetate 849217-23-8P, 7-Benzyloxy-6-methoxyquinolin-4-ol 849217-45-4P, 4-[[[4-(2-Fluoro-4-nitrophenoxy)-6-methoxyquinolin-7-yl]oxy]methyl]piperidine-1-carboxylic acid tert-butyl ester 849217-46-5P, 4-(2-Fluoro-4-nitrophenoxy)-6-methoxy-7-[(1-methylpiperidin-4-yl)methoxy]quinoline 849217-47-6P, [3-Fluoro-4-[[6-methoxy-7-(1-methylpiperidin-4-ylmethoxy)quinolin-4-yl]oxy]phenyl]amine 849217-48-7P 849217-53-4P, Trifluoromethanesulfonic acid 7-benzyloxy-6-methoxyquinolin-4-yl ester 849217-54-5P, Trifluoromethanesulfonic acid 6,7-dimethoxyquinolin-4-yl ester 849217-55-6P, N-(4-Benzyloxy-3-fluorophenyl)-N'-(2-phenylethyl)ethanediamide 849217-56-7P, N-(3-Fluoro-4-hydroxyphenyl)-N'-(2-phenylethyl)ethanediamide 849217-57-8P, Cyclopropane-1,1-dicarboxylic acid N-(4-benzyloxy-3-fluorophenyl)amide N-(4-fluorophenyl)amide 849217-58-9P, Cyclopropane-1,1-dicarboxylic acid N-(3-fluoro-4-hydroxyphenyl)amide N-(4-fluorophenyl)amide 849217-59-0P, Cyclopropane-1,1-dicarboxylic acid N-(4-benzyloxyphenyl)amide N-(4-fluorophenyl)amide 849217-60-3P, Cyclopropane-1,1-dicarboxylic acid N-(4-fluorophenyl)amide N-(4-hydroxyphenyl)amide 849217-86-3P, 5-[[(3,4-Dimethoxyphenyl)amino](methylsulfanyl)methylene]-2,2-dimethyl-[1,3]dioxane-4,6-dione 849217-87-4P, 6,7-Dimethoxy-2-(methylsulfanyl)quinolin-4-ol 849217-88-5P 849217-89-6P, [4-(6,7-Dimethoxy-2-methylsulfanylquinolin-4-yloxy)-3-fluorophenyl]amine 849217-91-0P, 5-[(Amino)[(3,4-dimethoxyphenyl)amino]methylene]-2,2-dimethyl-[1,3]dioxane-4,6-dione 849217-92-1P, 2-Amino-6,7-dimethoxyquinolin-4-ol 849217-93-2P, [4-(4-Amino-2-fluorophenoxy)-6,7-dimethoxyquinolin-2-yl]amine 849217-95-4P, 5-[[(3,4-Dimethoxyphenyl)amino](methylamino)methylene]-2,2-dimethyl-[1,3]dioxane-4,6-dione 849217-96-5P, 6,7-Dimethoxy-2-(methylamino)quinolin-4-ol 849217-97-6P, [4-(4-Amino-2-fluorophenoxy)-6,7-dimethoxyquinolin-2-yl]methylamine 849218-01-5P, 6,7-Dimethoxy-2-methyl-4-(4-nitrophenoxy)quinazoline 849218-02-6P, 4-(6,7-Dimethoxy-2-methylquinazolin-4-yloxy)phenylamine 849218-03-7P, (1S*,2R*)-1-(4-Fluorophenylcarbamoyl)-2-methylcyclopropanecarboxylic acid 849218-04-8P 849218-08-2P 849218-09-3P 849218-10-6P 849218-11-7P 849218-15-1P 849218-16-2P 849218-17-3P 849218-18-4P 849218-31-1P, [3-[[[1-[[4-[(6,7-Dimethoxyquinolin-4-yl)oxy]phenyl]carbamoyl]cyclopropyl]carbonyl]amino]benzyl]carbamic acid tert-butyl ester

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

IT 86-98-6P, 4,7-Dichloroquinoline 145591-80-6P 196211-13-9P, 1-(Benzylcarbamoyl)cyclopropanecarboxylic acid 473837-14-8P, 1,1-Dimethylethyl (3aR,6aS)-5-[(methylsulfonyl)oxy]hexahydrocyclopenta[c]pyrrole-2(1H)-carboxylate 650577-30-3P 650577-51-8P 650577-56-3P 650577-62-1P 650577-66-5P 650577-67-6P 650577-71-2P 650577-73-4P, (3R,8AS)-3-(Chloromethyl)hexahydro-1H-pyrrolo[2,1-c][1,4]oxazine 650577-74-5P, (3R,8AR)-3-(Chloromethyl)hexahydro-1H-pyrrolo[2,1-c][1,4]oxazine 650577-75-6P, (3S,8AR)-3-(Chloromethyl)hexahydro-1H-pyrrolo[2,1-c][1,4]oxazine 650577-86-9P, (3S,8AS)-hexahydro-1H-pyrrolo[2,1-c][1,4]oxazin-3-ylmethyl methanesulfonate 650577-94-9P, (Octahydro-2H-quinolizin-3-yl)methyl methanesulfonate 650578-01-1P, (3S,8AS)-3-(hydroxymethyl)-2-methylhexahydropyrrolo[1,2-a]pyrazin-1(2H)-one 650578-05-5P, Methyl 1-[(2S)-3-[(methylsulfonyl)oxy]-2-[[[(phenylmethyl)oxy]carbonyl]amino]propyl]-L-prolinate 650578-13-5P 650578-44-2P, (3S,9AS)-3-(chloromethyl)hexahydro-1H-[1,4]oxazino[3,4-c][1,4]oxazine 650578-47-5P, (3S,9AS)-hexahydro-1H-[1,4]oxazino[3,4-c][1,4]oxazin-3-ylmethyl acetate 650578-48-6P, ((3R,9AS)-Hexahydro-1H-[1,4]oxazino[3,4-c][1,4]oxazin-3-yl)methyl methanesulfonate 650578-71-5P, 1,1-Dimethylethyl (3-endo)-3-[2-[(methylsulfonyl)oxy]ethyl]-8-azabicyclo[3.2.1]octane-8-carboxylate 849217-49-8P, 1-(4-Fluorophenylcarbamoyl)cyclobutanecarboxylic acid 849217-73-8P, (8AR)-6-(Chloromethyl)tetrahydro-1H-[1,3]thiazolo[4,3-c][1,4]oxazine
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of quinolines and quinazolines as **inhibitors** of c-Met and other **tyrosine kinases** and therapeutic uses against proliferative diseases)

L140 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:515506 Document No. 141:71453 Preparation of anthranilic acid amide derivatives as neoplastic **inhibitors**. Bold, Guido; Furet, Pascal; Manley, Paul William (Novartis Ag, Switz.; Novartis Pharma GmbH). PCT Int. Appl. WO 2004052884 A1 20040624, 81 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-EP14086 20031211. PRIORITY: GB 2002-29022 20021212.

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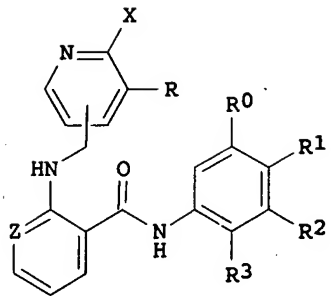
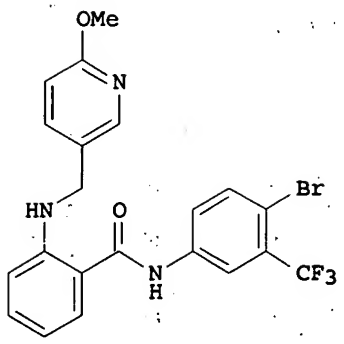


I



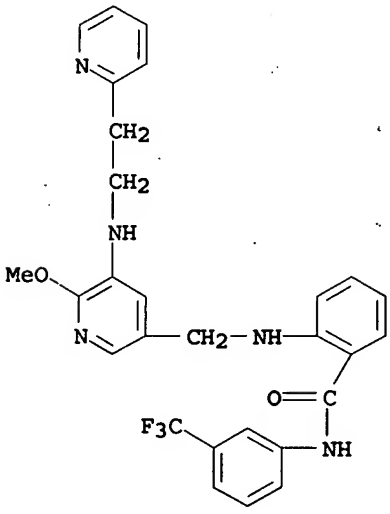
II

AB The title compds. I [wherein R and R0 = independently H, halo, (un)substituted alkyl, alkenyl, alkynyl, aryl, heteroaryl, etc.; R1 = H, halo, (un)substituted alkyl, alkenyl, alkynyl, alkoxy, OCF3, OCH2CF3, OCH2CH2CF3, or OCH2CH2CH2CF3; R2 = perfluoroalkyl; R3 = H or halo; X = OH, alkoxy, alkylthio, imino, alkylimino, halo, etc.; Z = N or CH] or salts, N-oxides, or tautomers thereof are prepared as neoplastic **inhibitors** for the treatment of human or animal body. For example, the compound II was prepared in a multi-step synthesis. Formulations containing I as an active ingredient were also described.

IT **709045-63-6P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of anthranilic acid amide derivs. as neoplastic **inhibitors**)

RN 709045-63-6 HCAPLUS

CN Benzamide, 2-[[[6-methoxy-5-[[2-(2-pyridinyl)ethyl]amino]-3-pyridinyl]methyl]amino]-N-[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



IC ICM C07D409-04

ICS C07D213-64; C07D405-04; C07D417-04; C07D213-74; C07D401-12; C07D213-61; C07D213-38; C07D213-50; A61K031-443; A61K031-4436; A61K031-4439; A61K031-4412; A61K031-44; A61P035-00

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 63

ST prepn anthranilic acid amide neoplastic **inhibitor** human formulation; treatment retinopathy macular degeneration prepn anthranilic acid amide

IT Eye, disease
(macula, degeneration, age-related; preparation of anthranilic acid amide derivs. as neoplastic **inhibitors**)

IT Antitumor agents
Human
(preparation of anthranilic acid amide derivs. as neoplastic **inhibitors**)

IT Eye, disease
(retinopathy; preparation of anthranilic acid amide derivs. as neoplastic **inhibitors**)

IT 524728-97-0P 524729-01-9P 657401-06-4P 709044-84-8P
709044-87-1P 709044-88-2P 709044-93-9P 709044-99-5P
709045-02-3P 709045-04-5P 709045-05-6P 709045-08-9P
709045-10-3P 709045-11-4P 709045-28-3P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate, reactant; preparation of anthranilic acid amide derivs. as neoplastic **inhibitors**)

IT 709044-83-7P 709044-89-3P 709044-90-6P 709044-91-7P
709044-92-8P 709044-94-0P 709044-95-1P 709044-97-3P
709045-01-2P 709045-03-4P 709045-06-7P 709045-07-8P
709045-09-0P 709045-12-5P 709045-13-6P 709045-17-0P
709045-21-6P 709045-32-9P 709045-33-0P 709045-34-1P
709045-37-4P 709045-38-5P 709045-39-6P 709045-40-9P
709045-41-0P 709045-42-1P 709045-43-2P 709045-44-3P
709045-45-4P 709045-46-5P 709045-47-6P 709045-48-7P
709045-49-8P 709045-50-1P 709045-51-2P 709045-52-3P
709045-53-4P 709045-54-5P 709045-55-6P 709045-56-7P
709045-57-8P 709045-58-9P 709045-59-0P 709045-60-3P
709045-61-4P 709045-62-5P 709045-63-6P 709045-64-7P
709045-65-8P 709045-66-9P 709045-67-0P 709045-68-1P
709045-69-2P 709045-70-5P 709045-71-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of anthranilic acid amide derivs. as neoplastic **inhibitors**)

IT 386705-49-3, **VEGF-receptor tyrosine kinase**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitors**; preparation of anthranilic acid amide derivs. as neoplastic **inhibitors**)

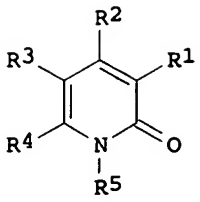
IT 20878-52-8P 65873-73-6P, 5-Bromo-6-methoxy-3-pyridinecarboxaldehyde 106984-91-2P 269391-28-8P 304884-94-4P, 2-Nitro-N-[3-(trifluoromethyl)phenyl]benzamide 455887-86-2P 524729-08-6P 524729-09-7P 630125-84-7P 630125-85-8P 630125-93-8P 630125-94-9P, (3-Amino-5-trifluoromethylphenyl)(4-ethylpiperazin-1-yl)methanone 630125-95-0P, (3-Nitro-5-trifluoromethylphenyl)(4-ethylpiperazin-1-yl)methanone 641571-06-4P, 5-(2-Methyl-1H-imidazol-1-yl)-3-(trifluoromethyl)benzenamine 641571-07-5P, 3-(2-Methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)benzonitrile 641571-08-6P,

3-(2-Methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)benzoic acid 641571-09-7P, [3-(2-Methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)phenyl]carbamic acid 1,1-dimethylethyl ester 694499-26-8P 709044-85-9P 709044-86-0P 709044-96-2P 709044-98-4P 709045-00-1P 709045-14-7P 709045-15-8P 709045-16-9P 709045-18-1P 709045-19-2P 709045-20-5P 709045-22-7P 709045-23-8P 709045-24-9P 709045-25-0P 709045-26-1P 709045-27-2P 709045-29-4P 709045-30-7P 709045-31-8P 709045-35-2P 709045-36-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of anthranilic acid amide derivs. as neoplastic **inhibitors**)

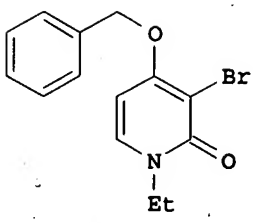
IT 76-63-1, Allyltriphenylstannane 98-16-8, 3-(Trifluoromethyl)benzenamine 98-80-6, Phenylboronic acid 109-01-3, N-Methylpiperazine 142-25-6 320-51-4, 4-Chloro-3-(trifluoromethyl)benzenamine 328-80-3 367-67-9, 2-Bromo-5-nitrobenzotrifluoride 393-36-2, 3-Amino-6-bromobenzotrifluoride 503-29-7, Azetidine 606-27-9 610-14-0, 2-Nitrobenzoyl chloride 693-98-1, 2-Methylimidazole 5308-25-8, N-Ethylpiperazine 64099-82-7, Tributyl-1-propynylstannane 65873-72-5, 6-Methoxy-3-pyridinecarboxaldehyde 65934-74-9, (4-Methyl-3-trifluoromethyl)benzenamine 72716-87-1, 2-Methoxy-4-pyridinecarboxaldehyde 97674-02-7, Tributyl(1-ethoxyethenyl)stannane 118289-17-1, 2-Bromo-4-pyridinecarboxaldehyde 123973-25-1 149793-69-1, 3-Fluoro-5-(trifluoromethyl)benzonitrile 269391-30-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of anthranilic acid amide derivs. as neoplastic **inhibitors**)

L140 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN
2003:656582 Document No. 139:197371 Preparation of substituted pyridinones as modulators of p38 MAP kinase. Devadas, Balekudru; Walker, John; Selness, Shaun R.; Boehm, Terri L.; Durley, Richard C.; Devraj, Rajesh; Hickory, Brian S.; Rucker, Paul V.; Jerome, Kevin D.; Madsen, Heather M.; Alvira, Edgardo; Promo, Michele A.; Blevis-Bal, Radhika M.; Marrufo, Laura D.; Hitchcock, Jeff; Owen, Thomas; Naing, Win; Xing, Li; Shieh, Huey S.; Sambandam, Aruna; Liu, Shuang; Scott, Ian L.; McGee, Kevin F. (Pharmacia Corporation, USA). PCT Int. Appl. WO 2003068230 A1 20030821, 1052 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-US4634 20030214. PRIORITY: US 2002-2002/PV35702U 20020214; US 2002-2002/PV436915 20021230.

GI



I



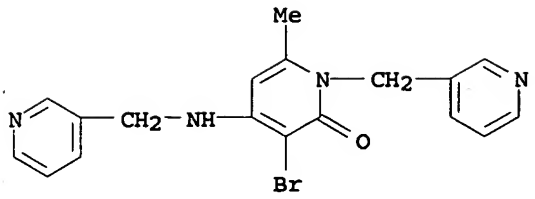
II

AB Disclosed are title compds. I [wherein R1 = H, halo, NO2, CHO, CN, CO2H, or (un)substituted (halo)alkyl, (aryl)alkoxy, aryl(alkyl), alkenyl, (aryl)alkynyl, (aryl)alkanoyl, alkoxyalkyl, or haloalkoxy; R2 = H, OH, halo, NR8R9, CO2R, or (un)substituted OSO2-alkyl, OSO2-aryl, arylalkoxy, aryloxy(alkyl), arylthio(alkoxy), arylalkynyl, alkoxy(alkoxy), alkyl, alkynyl, OCONH(CH2)n-aryl, OCON(alkyl)(CH2)n-aryl, dialkylamino, (hetero)aryl(alkyl), arylalkenyl, or heterocycloalkyl(alkyl); R3 = H, halo, alkenyl, NR6R7, NR6R7-alkyl, alkyl, or (un)substituted (aryl)alkoxycarbonyl, aryloxycarbonyl, arylalkyl, OCONH(CH2)n-aryl, arylalkoxy, OCON(alkyl)(CH2)n-aryl, aryloxy, arylthio, or (aryl)thioalkoxy; R4 = H or (un)substituted alkyl; R5 = H, aryl, aryl(thio)alkyl, NH2, alkoxycarbonyl, alkynyl, SO2-alkyl, (hetero)cycloalkyl(alkyl), heteroaryl, or (un)substituted alkyl, alkoxy(alkyl), or alkenyl; R6 and R7 = independently H, OH, or (un)substituted (aryl)alkyl, alkoxy(alkyl), alkanoyl(alkyl), arylalkoxy, SO2-alkyl, (aryl)alkoxycarbonyl, heteroarylalkyl, or arylalkanoyl; or NR6R7 = (un)substituted (thio)morpholinyl, pyrrolidinyl, piperidinyl, pyrrolidinyl, or piperazinyl; R8 = independently H or (un)substituted (aryl)alkyl or (aryl)alkanoyl; R9 = H or (un)substituted (aryl)alkyl, (aryl)alkanoyl, cycloalkyl(alkyl), alkenyl, heteroaryl, (alkyl)aminoalkyl, SO2Ph, or aryl; R = independently H or (un)substituted alkyl; n = 0-6; and pharmaceutically acceptable salts thereof]. These compds. are useful for treating diseases and conditions caused or exacerbated by unregulated p38 MAP Kinase and/or TNF activity, such as inflammation, ischemia, viral infections, and autoimmune diseases (no data). Pharmaceutical compns. containing I, methods of preparing them, and methods of treatment using the compds. are also disclosed. For example, reaction of 4-benzyloxy-2(1H)-pyridone with EtBr in the presence of K2CO3 in DMF gave II. The latter inhibited MKK6-activated human p38α kinase phosphorylation of a biotinylated substrate or human p38α-induced phosphorylation of EGFRP (epidermal growth factor receptor peptide) with an IC50 in the range of 1 μM to 25 μM.

IT **586387-41-9P**, 3-Bromo-6-methyl-1-(pyridin-3-ylmethyl)-4-[(pyridin-3-ylmethyl)amino]-1H-pyridin-2-one
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(p38 kinase inhibitor; preparation of pyridinones as modulators of p38 MAP kinase for treatment of inflammatory conditions, ischemia, viral infections, autoimmune diseases, and other conditions)

RN 586387-41-9 HCAPLUS

CN 2(1H)-Pyridinone, 3-bromo-6-methyl-1-(3-pyridinylmethyl)-4-[(3-pyridinylmethyl)amino]- (9CI) (CA INDEX NAME)



IC ICM A61K031-4412
ICS A61P029-00; C07D213-69; C07D401-06; C07D409-06; C07D213-70; C07D213-64; C07D213-74; C07D405-06; C07D213-84; C07D401-10; C07D405-12; C07D401-12; C07D213-75; C07D401-14; C07D213-79; C07D401-04; C07D405-04; C07D413-10; C07D215-22; C07D405-14

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 63

IT **Angiogenesis**
(neovascularization, eye; preparation of pyridinones as modulators of p38 MAP kinase for treatment of inflammatory conditions, ischemia, viral infections; autoimmune diseases, and other conditions)

IT **Angiogenesis**
(neovascularization, retinal; preparation of pyridinones as modulators of p38 MAP kinase for treatment of inflammatory conditions, ischemia, viral infections, autoimmune diseases, and other conditions)

IT Alzheimer's disease
Analgesics
Angiogenesis
Angiogenesis inhibitors
Anti-Alzheimer's agents
Anti-inflammatory agents
Anti-ischemic agents
Antiarteriosclerotics
Antiarthritics
Antiasthmatics
Antibacterial agents
Anticoagulants
Antidiabetic agents
Antimalarials
Antiparkinsonian agents
Antipyretics
Antirheumatic agents
Antitumor agents
Antiulcer agents
Antiviral agents
Arteriosclerosis
Arthritis
Asthma
Autoimmune disease
Bladder, neoplasm
Bone, neoplasm
Bone resorption
Bone resorption inhibitors
Brain, neoplasm
Burn
Cachexia
Carcinoma
Cardiovascular agents
Cardiovascular system, disease
Dermatitis

Diabetes insipidus
Diabetes mellitus
Digestive tract, disease
Digestive tract, neoplasm
Drug delivery systems
Eczema
Esophagus, neoplasm
Eye, disease
Fever and Hyperthermia
Gastrointestinal agents
Gout
Granulation tissue
Human
Immunomodulators
Inflammation
Influenza
Ischemia
Keloid
Leukemia
Lip
Liver, disease
Liver, neoplasm
Lung, disease
Lung, neoplasm
Lymphoma
Malaria
Mammary gland, neoplasm
Meningitis
Mouth, neoplasm
Multiple sclerosis
Neoplasm
Nervous system agents
Osteoarthritis
Osteoporosis
Ovary, neoplasm
Pain
Pancreas, neoplasm
Parkinson's disease
Phosphorylation, biological
Prostate gland, neoplasm
Psoriasis
Reproduction disorders
Rheumatoid arthritis
Sepsis
Silicosis
Skin, disease
Skin, neoplasm
Solid phase synthesis
Stomach, neoplasm
Thrombosis
(preparation of pyridinones as modulators of p38 MAP kinase for treatment of inflammatory conditions, ischemia, viral infections, autoimmune diseases, and other conditions)

IT 586385-81-1P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(2-hydroxy-2-methylpropanoyl)-1-(3-hydroxypropanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-82-2P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(3-hydroxy-3-methylbutanoyl)-3-(2-hydroxy-2-methylpropanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-83-3P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(2-hydroxy-2-methylpropanoyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586385-84-4P, 5-[[3-Chloro-4-[(2,4-

difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(2-hydroxy-2-methylpropanoyl)-1-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-85-5P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-86-6P, 1-Acetyl-5-[[3-chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-87-7P 586385-88-8P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(2-hydroxy-2-methylpropanoyl)-3-(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-89-9P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1,3-bis(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-90-2P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(3-hydroxypropanoyl)-3-(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-91-3P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(3-hydroxy-3-methylbutanoyl)-3-(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-92-4P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(N-methylglycyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586385-93-5P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(N-methylglycyl)-1-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-94-6P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(3-hydroxypropanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-95-7P, 1-Acetyl-5-[[3-chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxypropanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-96-8P 586385-97-9P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(2-hydroxy-2-methylpropanoyl)-3-(3-hydroxypropanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-98-0P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxypropanoyl)-1-(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one 586385-99-1P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1,3-bis(3-hydroxypropanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-00-7P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(3-hydroxy-3-methylbutanoyl)-3-(3-hydroxypropanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-01-8P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxypropanoyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-02-9P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxypropanoyl)-1-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-03-0P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(3-hydroxy-3-methylbutanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-04-1P, 1-Acetyl-5-[[3-chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxy-3-methylbutanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-05-2P 586386-06-3P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxy-3-methylbutanoyl)-1-(2-hydroxy-2-methylpropanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-07-4P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxy-3-methylbutanoyl)-1-(N-methylglycyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-08-5P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1,3-bis(3-hydroxy-3-methylbutanoyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-09-6P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxy-3-methylbutanoyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-10-9P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxy-3-methylbutanoyl)-1-

(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-11-0P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-12-1P, 3-Acetyl-6-[[3-chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-13-2P 586386-14-3P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(2-hydroxy-2-methylpropanoyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-15-4P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(N-methylglycyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-16-5P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxypropanoyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-17-6P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(3-hydroxy-3-methylbutanoyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-18-7P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-2-oxo-1H-benzimidazole-1,3(2H)-dicarboxamide 586386-19-8P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(methylsulfonyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-20-1P, 6-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-21-2P, 1-Acetyl-5-[[3-chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-22-3P 586386-23-4P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(2-hydroxy-2-methylpropanoyl)-3-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-24-5P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(N-methylglycyl)-3-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-25-6P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(3-hydroxypropanoyl)-3-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-26-7P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1-(3-hydroxy-3-methylbutanoyl)-3-(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-27-8P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-3-(methylsulfonyl)-2-oxo-2,3-dihydro-1H-benzimidazole-1-carboxamide 586386-28-9P, 5-[[3-Chloro-4-[(2,4-difluorobenzyl)oxy]-2-oxo-2H-pyridin-1-yl]methyl]-1,3-bis(methylsulfonyl)-1,3-dihydro-2H-benzimidazol-2-one 586386-30-3P, 3-Bromo-1-(2,6-dichlorophenyl)-4-[(4-fluorophenyl)ethynyl]-6-methylpyridin-2(1H)-one 586386-31-4P, 3-[4-[(2,4-Difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]benzaldehyde 586386-32-5P, 4-[(2,4-Difluorobenzyl)oxy]-1-[4-(dimethylamino)-2,6-difluorophenyl]-6-methylpyridin-2(1H)-one 586386-33-6P, 4-[(2,4-Difluorobenzyl)oxy]-1-[2,6-difluoro-4-[(2-hydroxyethyl)(methyl)amino]phenyl]-6-methylpyridin-2(1H)-one 586386-34-7P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-[4-(hydroxymethyl)-2-methoxyphenyl]-6-methylpyridin-2(1H)-one 586386-35-8P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[3-[(4-methylpiperazin-1-yl)carbonyl]phenyl]pyridin-2(1H)-one 586386-36-9P, 3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-[2-(dimethylamino)ethyl]benzamide 586386-37-0P, 3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-(2-methoxyethyl)benzamide 586386-38-1P, 3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-[2-(dimethylamino)ethyl]-N-methylbenzamide 586386-39-2P, 3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-(2-hydroxyethyl)-N-methylbenzamide 586386-40-5P, 3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-(2-methoxyethyl)-N-methylbenzamide 586386-41-6P,

4-[4-[(2,4-Difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-3-methylbenzoic acid 586386-42-7P, Methyl [2-[[[3-bromo-1-(2,6-difluorophenyl)-6-methyl-2-oxo-1,2-dihydropyridin-4-yl]oxy]methyl]-3,5-difluorobenzyl]carbamate 586386-43-8P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[4-(piperidin-1-ylcarbonyl)benzyl]-1H-pyridin-2-one 586386-44-9P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-(2,6-difluorophenyl)-6-[(ethoxyamino)methyl]pyridin-2(1H)-one 586386-45-0P, N-(3-Aminopropyl)-4-[[3-bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]methyl]benzamide hydrochloride 586386-46-1P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-(1H-indazol-5-ylmethyl)pyridin-2(1H)-one 586386-47-2P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-[2-(dimethylamino)-4,6-difluorophenyl]-6-methylpyridin-2(1H)-one hydrochloride 586386-48-3P, N-(2-Aminoethyl)-4-[[3-bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]methyl]benzamide hydrochloride 586386-49-4P, N-(2-Aminoethyl)-3-[3-bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]benzamide 586386-50-7P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[4-(piperazin-1-ylcarbonyl)benzyl]pyridin-2(1H)-one hydrochloride 586386-51-8P, 3-Chloro-4-[(2,4-difluorobenzyl)oxy]-1-(2,6-difluorophenyl)-6-[(dimethylamino)methyl]pyridin-2(1H)-one 586386-52-9P 586386-53-0P, 3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-isopropylbenzamide 586386-54-1P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[3-(morpholin-4-ylcarbonyl)benzyl]-1H-pyridin-2-one 586386-55-2P, 3-[[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]methyl]-N,N-bis(2-hydroxyethyl)benzamide 586386-56-3P, 3-[[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]methyl]-N-hydroxybenzamide 586386-57-4P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-(3-hydroxymethylbenzyl)-6-methyl-1H-pyridin-2-one 586386-58-5P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[3-(pyrrolidin-1-ylcarbonyl)benzyl]-1H-pyridin-2-one 586386-59-6P, 3-Bromo-1-[2-chloro-5-(hydroxymethyl)phenyl]-4-[(2,4-difluorobenzyl)oxy]-6-methylpyridin-2(1H)-one 586386-60-9P, 3-Chloro-1-[2-chloro-5-(hydroxymethyl)phenyl]-4-[(2,4-difluorobenzyl)oxy]-6-methylpyridin-2(1H)-one 586386-61-0P 586386-62-1P, 3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-(2-hydroxyethyl)benzamide 586386-63-2P, 3-[[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]methyl]-N-(2-hydroxyethyl)benzamide 586386-64-3P, 3-[[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]methyl]-N,N-dimethylbenzamide 586386-65-4P, 3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-hydroxybenzamide 586386-66-5P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[3-(pyrrolidin-1-ylcarbonyl)phenyl]pyridin-2(1H)-one 586386-67-6P, 3-[[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]methyl]-N-isopropylbenzamide 586386-68-7P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[3-(morpholin-4-ylcarbonyl)phenyl]pyridin-2(1H)-one 586386-69-8P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[3-(piperidin-1-ylcarbonyl)benzyl]-1H-pyridin-2-one 586386-70-1P, 3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N,N-dimethylbenzamide 586386-71-2P, 4-(Benzylamino)-1-(3-fluorobenzyl)-6-methyl-3-nitropyridin-2(1H)-one 586386-72-3P, tert-Butyl 4-[3-bromo-1-(3-fluorobenzyl)-2-oxo-1,2-dihydropyridin-4-yl]piperazine-1-carboxylate 586386-73-4P, Ethyl [4-(benzyloxy)-3-bromo-2-oxo-2H-pyridin-1-yl]acetate 586386-74-5P, N-[3-Bromo-1-(3-fluorobenzyl)-2-oxo-1,2-dihydropyridin-4-yl]benzenesulfonamide 586386-75-6P,

N-[3-Bromo-1-(3-fluorobenzyl)-2-oxo-1,2-dihydropyridin-4-yl]-1-phenylmethanesulfonamide 586386-76-7P, 3-Bromo-4-[(2,4-difluorophenyl)amino]-1-(3-fluorobenzyl)pyridin-2(1H)-one 586386-77-8P, 4-Anilino-3-bromo-1-(3-fluorobenzyl)pyridin-2(1H)-one 586386-78-9P, Methyl 4-[[3-bromo-1-(3-fluorobenzyl)-2-oxo-1,2-dihydropyridin-4-yl]amino]benzoate 586386-79-0P, 3-Bromo-1-(3-fluorobenzyl)-4-[(3,4,5-trimethoxyphenyl)amino]pyridin-2(1H)-one 586386-80-3P, 3-Bromo-1-(3-fluorobenzyl)-4-[4-(4-fluorophenyl)piperazin-1-yl]pyridin-2(1H)-one 586386-82-5P, 3-Bromo-1-(3-fluorobenzyl)-4-(4-methylpiperazin-1-yl)pyridin-2(1H)-one trifluoroacetate 586386-83-6P, N-[3-Bromo-1-(3-fluorobenzyl)-2-oxo-1,2-dihydropyridin-4-yl]-2,5-difluorobenzamide 586386-84-7P, N-[3-Bromo-1-(3-fluorobenzyl)-2-oxo-1,2-dihydropyridin-4-yl]-2,4-difluorobenzamide 586386-85-8P, 3-[4-(Benzyloxy)-3-bromo-2-oxo-2H-pyridin-1-yl]propanoic acid 586386-86-9P, N-[3-Bromo-1-(3-fluorobenzyl)-2-oxo-1,2-dihydropyridin-4-yl]-N'-(2,4-difluorophenyl)urea 586386-87-0P, 3-[4-(Benzyloxy)-3-bromo-2-oxo-2H-pyridin-1-yl]propanamide 586386-88-1P, 4-(Benzyloxy)-3-bromo-1-[3-(morpholin-4-yl)-3-oxopropyl]pyridin-2(1H)-one 586386-89-2P, N-(3-Aminopropyl)-3-[4-(benzyloxy)-3-bromo-2-oxo-2H-pyridin-1-yl]propanamide hydrochloride 586386-90-5P, 4-(Benzyloxy)-3-bromo-1-[3-oxo-3-(piperazin-1-yl)propyl]pyridin-2(1H)-one hydrochloride 586386-91-6P, 4-(Benzyloxy)-3-bromo-1-[2-(morpholin-4-yl)ethyl]pyridin-2(1H)-one 586386-92-7P, N-(2-Aminoethyl)-3-[4-(benzyloxy)-3-bromo-2-oxo-2H-pyridin-1-yl]propanamide hydrochloride 586386-93-8P, [3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]acetic acid 586386-94-9P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[(tetrahydrofuran-2-yl)methyl]pyridin-2(1H)-one 586386-95-0P, 4-[(2,4-Difluorobenzyl)oxy]-6-methyl-1-[(tetrahydrofuran-2-yl)methyl]pyridin-2(1H)-one 586386-96-1P, Methyl 3-bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridine-1-carboxylate 586386-97-2P, 1-Allyl-3-(2,4-difluorobenzyl)-4-[(2,4-difluorobenzyl)oxy]-6-methylpyridin-2(1H)-one 586386-98-3P, 4-(Benzyloxy)-1-(2,2-diethoxyethyl)pyridin-2(1H)-one 586386-99-4P 586387-00-0P 586387-01-1P 586387-02-2P, 4-(Benzyloxy)-1-(2-oxopropyl)pyridin-2(1H)-one 586387-03-3P, 5-[[4-(Benzyloxy)-2-oxo-2H-pyridin-1-yl]methyl]-5-methylimidazolidine-2,4-dione 586387-04-4P, Ethyl [4-(benzyloxy)-2-oxo-2H-pyridin-1-yl]acetate 586387-05-5P, 2-[4-(Benzyloxy)-2-oxo-2H-pyridin-1-yl]acetamide 586387-06-6P, 4-(Benzyloxy)-1-ethylpyridin-2(1H)-one 586387-07-7P, tert-Butyl 3-[[4-(benzyloxy)-2-oxo-2H-pyridin-1-yl]methyl]piperidine-1-carboxylate 586387-08-8P, 1,3-Dibenzyl-4-hydroxy-6-methylpyridin-2(1H)-one 586387-09-9P, 1-Benzyl-6-methyl-2-oxo-1,2-dihydropyridin-4-yl methanesulfonate 586387-10-2P, 1-Benzyl-4-(naphthyl-1-ylmethoxy)pyridin-2(1H)-one 586387-11-3P, 1-Benzyl-4-(benzylthio)-3,5-dibromopyridin-2(1H)-one 586387-12-4P, 1-Benzyl-3-[(benzylamino)methyl]-4-(benzyloxy)pyridin-2(1H)-one 586387-13-5P, 1-Benzyl-4-(benzyloxy)-3-[[(2-cyclohexylethyl)amino]methyl]pyridin-2(1H)-one 586387-14-6P, 1-Benzyl-4-(benzylthio)-5-methylpyridin-2(1H)-one 586387-15-7P, 1-Benzyl-3-bromo-6-methyl-2-oxo-1,2-dihydropyridin-4-yl methanesulfonate 586387-16-8P, 1-Benzyl-3-bromo-6-methyl-4-[[2-(trifluoromethyl)benzyl]oxy]pyridin-2(1H)-one 586387-17-9P, 1-Benzyl-3-bromo-6-methyl-2-oxo-1,2-dihydropyridin-4-yl 4-bromobenzenesulfonate 586387-18-0P, 4-Phenoxy-1-[[2-(trimethylsilyl)ethoxy]methyl]pyridin-2(1H)-one 586387-19-1P, 1-Benzyl-4-phenoxypyridin-2(1H)-one 586387-20-4P 586387-21-5P, 3-Bromo-4-hydroxy-1-(4-hydroxybenzyl)pyridin-2(1H)-one hydrochloride 586387-22-6P, 4-(Benzyloxy)-3-bromo-1-(piperidin-3-

ylmethyl)pyridin-2(1H)-one 586387-23-7P, Benzyl (5-nitro-2,6-dioxo-3,6-dihydropyrimidin-1(2H)-yl)acetate 586387-24-8P, Methyl (2E)-4-[4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-2-butenoate 586387-25-9P, tert-Butyl 4-[[4-(benzyloxy)-3-bromo-2-oxo-2H-pyridin-1-yl]methyl]piperidine-1-carboxylate 586387-26-0P, 1-Benzyl-4-[(4-methylbenzyl)oxy]pyridin-2(1H)-one 586387-27-1P, 2-[[[3-Bromo-2-oxo-1-(pyridin-3-ylmethyl)-1,2-dihydropyridin-4-yl]oxy]methyl]-5-fluorobenzonitrile 586387-28-2P, tert-Butyl 3-[[4-(benzyloxy)-3-bromo-2-oxo-2H-pyridin-1-yl]methyl]piperidine-1-carboxylate 586387-29-3P, 4-Benzyloxy-3-bromo-1-(methanesulfonyl)-1H-pyridin-2-one 586387-30-6P, tert-Butyl 4-[4-(benzyloxy)-3-bromo-2-oxo-2H-pyridin-1-yl]piperidine-1-carboxylate 586387-31-7P, 4-(Benzyloxy)-1-[4-(methylthio)benzyl]pyridin-2(1H)-one 586387-32-8P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-[(2-methyl-4-methylaminopyrimidin-5-yl)methyl]-1H-pyridin-2-one 586387-33-9P, 4-(Benzyloxy)-1-[4-(methylsulfonyl)benzyl]pyridin-2(1H)-one 586387-34-0P, 4-Phenoxy-1H-pyridin-2-one 586387-35-1P , 4-[(2,4-Difluorobenzyl)oxy]-1-(2,6-difluorophenyl)-6-methylpyridin-2(1H)-one 586387-36-2P, 1-(3-Fluorobenzyl)-4-(phenylethynyl)pyridin-2(1H)-one 586387-37-3P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[2-(methylthio)pyrimidin-4-yl]pyridin-2(1H)-one 586387-38-4P, 4-(Benzyloxy)-3-bromo-1-piperidin-4-ylpyridin-2(1H)-one hydrochloride 586387-39-5P, 4-Benzyloxy-1-difluoromethyl-1H-pyridin-2-one 586387-40-8P, 4-Benzyloxy-3-bromo-1-(2-chlorophenyl)-6-methyl-1H-pyridin-2-one **586387-41-9P**, 3-Bromo-6-methyl-1-(pyridin-3-ylmethyl)-4-[(pyridin-3-ylmethyl)amino]-1H-pyridin-2-one 586387-42-0P, 2-Chloro-N-[1-(2,6-dichlorobenzyl)-6-oxo-5-trifluoromethyl-1,6-dihydropyridin-3-yl]-4-fluorobenzamide 586387-43-1P, N-[1-(2,6-Dichlorobenzyl)-6-oxo-5-trifluoromethyl-1,6-dihydropyridin-3-yl]-4-isopropoxybenzamide 586387-44-2P, 3-Bromo-1-(3-fluorobenzyl)-4-(3-methoxyphenyl)-1H-pyridin-2-one 586387-45-3P, 3-Bromo-1-(3-fluorobenzyl)-4-(3-isopropylphenyl)-1H-pyridin-2-one 586387-46-4P, 3'-Bromo-1'-(3-fluorobenzyl)-6-methoxy-1'H-[3,4']bipyridinyl-2'-one 586387-47-5P, 4-Benzo[1,3]dioxol-5-yl-3-bromo-1-(3-fluorobenzyl)-1H-pyridin-2-one 586387-48-6P, 3-Bromo-1-(3-fluorobenzyl)-4-thiophen-3-yl-1H-pyridin-2-one 586387-49-7P, 3-Bromo-1-(3-fluorobenzyl)-4-(3-trifluoromethylphenyl)-1H-pyridin-2-one 586387-50-0P, 3-Bromo-1-(3-fluorobenzyl)-4-naphthalen-2-yl-1H-pyridin-2-one 586387-51-1P, 3-Bromo-1-(3-fluorobenzyl)-4-(4-fluorophenyl)-1H-pyridin-2-one 586387-52-2P, 1-Benzenesulfonyl-4-benzyloxy-3-bromo-1H-pyridin-2-one 586387-53-3P, 4-[3-Amino-1-(2,4-difluorophenyl)propoxy]-3-bromo-6-methyl-1-[(pyridin-3-yl)methyl]-1H-pyridin-2-one 586387-54-4P, 2-[[[1-[(4-Amino-2-methylpyrimidin-5-yl)methyl]-3-bromo-6-methyl-2-oxo-1,2-dihydropyridin-4-yl]oxy]methyl]-5-fluorobenzonitrile 586387-55-5P, 1-(2-Chloro-4-hydroxyphenyl)-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1H-pyridin-2-one 586387-56-6P, 3-Bromo-1-(2,6-difluorophenyl)-4-methoxy-6-methyl-5-vinyl-1H-pyridin-2-one 586387-57-7P 586387-58-8P, 1-(2,6-Difluorophenyl)-4-methoxy-6-methyl-5-phenethyl-1H-pyridin-2-one 586387-59-9P, 3-Bromo-1-(2,6-difluorophenyl)-4-methoxy-6-methyl-5-phenethyl-1H-pyridin-2-one 586387-60-2P, 1-(1H-Indazol-5-yl)-4-(1H-indazol-5-ylamino)-6-methylpyridin-2(1H)-one 586387-61-3P, 5-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-(2,6-difluorophenyl)-2-[2-(2,4-difluorophenyl)ethyl]-6-oxo-1,6-dihydropyridine-3-carboxaldehyde 586387-62-4P, 4-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]pyrimidine-2-

carbonitrile 586387-63-5P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-[1,2']bipyridinyl-5'-carboxylic acid 586387-64-6P, 3-Bromo-4-[(5-carboxypyridin-2-yl)oxy]-6-methyl-2-oxo-2H-[1,2']bipyridinyl-5'-carboxylic acid 586387-65-7P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6,6'-dimethyl-2-oxo-2H-[1,2']bipyridinyl-3'-carbonitrile 586387-66-8P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-[1,2']bipyridinyl-5'-carboxylic acid methylamide 586387-67-9P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-[1,2']bipyridinyl-5'-carboxylic acid N-(2-hydroxyethyl)amide 586387-68-0P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-[1,2']bipyridinyl-5'-carboxylic acid N-(2-methoxyethyl)amide 586387-69-1P, 3-Bromo-1-(2,6-difluorophenyl)-4-methoxy-6-methyl-5-(4-methylbenzyl)-1H-pyridin-2-one 586387-70-4P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-(2,6-difluorophenyl)-5-(1,2-dihydroxy-2-phenylethyl)-6-methylpyridin-2(1H)-one 586387-71-5P, 3-Chloro-1-(4-fluorobenzyl)-4-[(4-fluorobenzyl)oxy]pyridin-2(1H)-one 586387-72-6P, 4-[[3-Chloro-4-[(2,4-difluorobenzyl)amino]-6-methyl-2-oxo-2H-pyridin-1-yl]methyl]benzonitrile trifluoroacetate 586387-74-8P 586387-75-9P, 4-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-methylbenzamide 586387-76-0P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[3-(piperidin-1-ylcarbonyl)phenyl] pyridin-2(1H)-one 586387-77-1P, 4-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-hydroxybenzamide 586387-78-2P, 3-Bromo-1-(2,6-dichlorophenyl)-4-[2-(4-fluorophenyl)ethyl]-6-methylpyridin-2(1H)-one 586387-79-3P, 4-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N-isopropylbenzamide 586387-80-6P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[4-(pyrrolidin-1-ylcarbonyl)phenyl] pyridin-2(1H)-one 586387-81-7P, 4-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N,N-bis(2-hydroxyethyl)benzamide 586387-83-9P, 4-(Benzyloxy)-1-(piperidin-3-ylmethyl)pyridin-2(1H)-one trifluoroacetate 586387-84-0P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[4-(morpholin-4-ylcarbonyl)phenyl]pyridin-2(1H)-one 586387-85-1P 586387-86-2P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-[4-(piperidin-1-ylcarbonyl)phenyl]pyridin-2(1H)-one 586387-87-3P, 3-Bromo-1-(3-fluorobenzyl)-4-[(3-fluorobenzyl)amino]pyridin-2(1H)-one 586387-88-4P 586387-89-5P, N-[3-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]benzyl]-2-hydroxyacetamide 586387-90-8P, 1-(4-Fluorobenzyl)-4-[(4-fluorobenzyl)oxy]pyridin-2(1H)-one 586387-91-9P, 4-[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]-N,N-dimethylbenzamide 586387-92-0P, 4-(Allylamino)-3-bromo-1-(2,6-difluorophenyl)-6-methylpyridin-2(1H)-one 586387-93-1P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-[(2,3-dihydro-1H-indol-5-yl)methyl]-1H-pyridin-2-one 586387-94-2P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-1-[[1-(2-hydroxyacetyl)-2,3-dihydro-1H-indol-5-yl]methyl]-6-methyl-1H-pyridin-2-one 586387-95-3P, 3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-1-(1H-pyrazol-3-ylmethyl)-1H-pyridin-2-one 586396-12-5P, 3-Chloro-1-[4-[[(cyclopropylmethyl)amino]methyl]-2,6-difluorophenyl]-4-[(2,4-difluorobenzyl)oxy] pyridin-2(1H)-one hydrochloride 586396-39-6P, N-[3-[[3-Bromo-4-[(2,4-difluorobenzyl)oxy]-6-methyl-2-oxo-2H-pyridin-1-yl]methyl]benzyl]-2-acetoxyacetamide 586396-68-1P 586397-52-6P 586397-63-9P 586397-73-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(p38 kinase inhibitor; preparation of pyridinones as modulators of

p38 MAP kinase for treatment of inflammatory conditions, ischemia, viral infections, autoimmune diseases, and other conditions)

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1998:682233 Document No. 129:302564 Preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**. Wissner, Allan; Johnson, Bernard Dean; Reich, Marvin Fred; Floyd, Middleton Brawner, Jr.; Kitchen, Douglas B.; Tsou, Hwei-ru (American Cyanamid Co., USA). PCT Int. Appl. WO 9843960 A1 19981008, 223 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US6480 19980402. PRIORITY: US 1997-826604 19970403.

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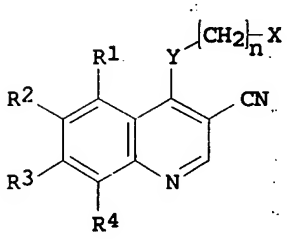


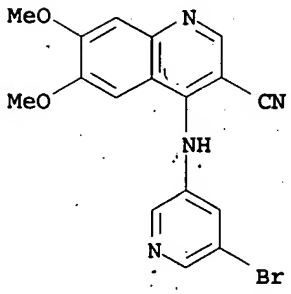
I

AB The title compds. [I; X = (un)substituted cycloalkyl, pyridinyl, pyrimidinyl, Ph; n = 0-1; Y = NH, O, S, NR; R = = C1-6 alkyl; R1-R4 = H, halo, alkyl, etc. (with the proviso that when Y = NH; R1-R4 = H; n = O; X is not 2-methylphenyl)], **inhibitors** of protein **tyrosine kinase** which are useful in treating, **inhibiting** the growth of, or eradicating a neoplasm which expresses EGFR, MAPK, ECK or KDR, and in treating polycystic kidney disease, were prepared Thus, treatment of 2-butynoic acid with iso-Bu chloroformate and N-methylmorpholine in THF followed by the addition of this solution of the mixed anhydride to a solution of 6-amino-4-[(3-bromophenyl)amino]-7-methoxy-3-quinolinecarbonitrile (preparation described) in THF over a 24 h period afforded I [Y = NH; n = 0; X = 3-BrC6H4; R1 = R4 = H; R2 = MeC.tplbond.CC(O)NH; R3 = MeO] which showed IC50 of 0.15 μM against epidermal growth factor receptor kinase (A431 membrane extract).

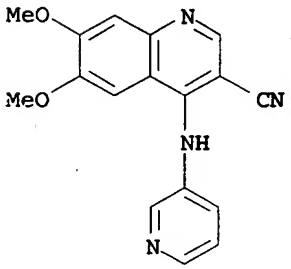
IT **214484-43-2P 214486-36-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)

RN 214484-43-2 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(5-bromo-3-pyridinyl)amino]-6,7-

dimethoxy- (9CI) (CA INDEX NAME)



RN 214486-36-9 HCAPLUS
CN 3-Quinolinecarbonitrile, 6,7-dimethoxy-4-(3-pyridinylamino)- (9CI) (CA INDEX NAME)



IC ICM C07D215-54
ICS A61K031-47; C07D401-12
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1
ST cyanoquinoline prepn protein **tyrosine kinase** **inhibitor**; antitumor agent cyanoquinoline prepn; EGFR kinase **inhibitor** cyanoquinoline prepn; MAPK **inhibitor** cyanoquinoline prepn; mitogen activated protein kinase cyanoquinoline prepn; KDR catalytic domain VEGF cyanoquinoline prepn; ECK **inhibitor** cyanoquinoline prepn; polycystic kidney disease cyanoquinoline prepn
IT Vascular endothelial growth factor receptors
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(**inhibition** of kinase insert domain containing receptor (KDR; the catalytic domain of the **VEGF** **receptor**); preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)
IT Kidney, disease
(polycystic, treatment of; preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)
IT Antitumor agents
(preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)
IT 137632-08-7, Mitogen-activated protein kinase erk2
RL: BSU (Biological study, unclassified); MSC (Miscellaneous);

BIOL (Biological study)
(**inhibition** of; preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)

IT 79079-06-4, EGFR kinase
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(**inhibitors** of; preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)

IT 214484-03-4P 214484-17-0P 214484-20-5P 214484-25-0P
214484-34-1P 214484-54-5P 214484-70-5P 214484-76-1P
214484-77-2P 214484-78-3P 214484-90-9P 214484-91-0P
214484-93-2P 214484-96-5P 214485-08-2P 214485-11-7P
214485-12-8P 214485-14-0P 214485-15-1P 214485-17-3P
214485-18-4P 214485-21-9P 214485-22-0P 214485-26-4P
214485-27-5P 214485-50-4P 214485-51-5P 214485-52-6P
214485-53-7P 214485-59-3P 214485-60-6P 214485-64-0P
214485-65-1P 214485-68-4P 214486-12-1P 214486-13-2P
214486-46-1P 214486-49-4P 214486-50-7P 214486-65-4P
214486-74-5P 214486-76-7P 214486-89-2P 214486-90-5P
214486-94-9P 214486-97-2P 214487-11-3P 214487-13-5P
214487-14-6P 214487-15-7P 214487-16-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)

IT 214483-99-5P 214484-01-2P 214484-05-6P 214484-07-8P
214484-09-0P 214484-11-4P 214484-12-5P 214484-13-6P
214484-14-7P 214484-15-8P 214484-16-9P 214484-18-1P
214484-19-2P 214484-21-6P 214484-22-7P 214484-23-8P
214484-24-9P 214484-26-1P 214484-27-2P 214484-28-3P
214484-29-4P 214484-30-7P 214484-31-8P 214484-32-9P
214484-33-0P 214484-36-3P 214484-37-4P 214484-39-6P
214484-40-9P 214484-41-0P 214484-42-1P **214484-43-2P**
214484-44-3P 214484-45-4P 214484-46-5P 214484-47-6P
214484-48-7P 214484-49-8P 214484-50-1P 214484-51-2P
214484-52-3P 214484-53-4P 214484-55-6P 214484-56-7P
214484-57-8P 214484-58-9P 214484-59-0P 214484-60-3P
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214484-89-6P 214484-92-1P 214484-94-3P 214484-95-4P
214484-97-6P 214484-98-7P 214484-99-8P 214485-00-4P
214485-01-5P 214485-02-6P 214485-03-7P 214485-04-8P
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214485-70-8P 214485-71-9P 214485-72-0P 214485-73-1P
214485-74-2P 214485-75-3P 214485-76-4P 214485-77-5P

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214486-28-9P 214486-29-0P 214486-30-3P 214486-31-4P
214486-33-6P 214486-35-8P **214486-36-9P** 214486-37-0P
214486-38-1P 214486-39-2P 214486-40-5P 214486-41-6P
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214486-47-2P 214486-48-3P 214486-51-8P 214486-52-9P
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214486-66-5P 214486-67-6P 214486-68-7P 214486-69-8P
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214486-84-7P 214486-85-8P 214486-86-9P 214486-87-0P
214486-88-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)

IT 214486-91-6P 214486-92-7P 214486-93-8P 214486-95-0P
214486-96-1P 214486-98-3P 214486-99-4P 214487-00-0P
214487-01-1P 214487-02-2P 214487-03-3P 214487-04-4P
214487-05-5P 214487-06-6P 214487-07-7P 214487-08-8P
214487-09-9P 214487-10-2P 214487-12-4P 214487-17-9P
214487-18-0P 214487-19-1P 214487-20-4P 214487-21-5P
214487-22-6P 214487-23-7P 214487-24-8P 214487-25-9P
214488-80-9P 214489-60-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)

IT 80449-02-1, Protein **tyrosine kinase**
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)

IT 62-53-3, Benzenamine, reactions 79-03-8, Propionyl chloride 80-41-1, 2-Chloroethyl p-toluenesulfonate 87-13-8, Diethyl ethoxymethylenemalonate 88-68-6, Anthranilamide 94-05-3, Ethyl e(thoxymethylenecyanoacetate 95-03-4, 5-Chloro-o-anisidine 95-74-9, 2-Chloro-4-aminotoluene 95-76-1, 3,4-Dichloroaniline 95-84-1, 2-Amino-p-cresol 95-85-2, 2-Amino-4-chlorophenol 97-52-9, 2-Methoxy-4-nitroaniline 98-16-8, 3-(Trifluoromethyl)aniline 99-03-6 99-09-2, 3-Nitroaniline 99-52-5 100-01-6, 4-Nitroaniline, reactions 100-46-9, Benzylamine, reactions 100-61-8, reactions 102-49-8, 3,4-Dichlorobenzylamine 102-50-1, 4-Methoxy-2-methylaniline

104-10-9, 4-Aminophenethyl alcohol 104-96-1 106-40-1, 4-Bromoaniline 106-44-5, 4-Methylphenol, reactions 106-53-6, 4-Bromothiophenol 107-08-4, 1-Iodopropane 107-30-2 107-93-7 108-42-9, 3-Chloroaniline 108-44-1, 3-Toluidine, reactions 108-45-2, 1,3-Benzenediamine, reactions 108-91-8, Cyclohexylamine, reactions 109-65-9, 1-Bromobutane 109-89-7, Diethylamine, reactions 110-91-8, Morpholine, reactions 134-20-3, Methyl anthranilate 139-59-3, 4-Phenoxyaniline 141-75-3, Butyryl chloride 320-51-4, 4-Chloro-3-trifluoromethylaniline 348-62-9, 4-Chloro-2-fluorophenol 363-81-5, 2,4,6-Trifluoroaniline 367-21-5, 3-Chloro-4-fluoroaniline 371-40-4, 4-Fluoroaniline 372-19-0, 3-Fluoroaniline 452-69-7, 4-Fluoro-3-methylaniline 455-14-1, 4-Trifluoromethylaniline 462-08-8, 3-Aminopyridine 536-46-9, 4-Dimethylaminoaniline dihydrochloride 536-90-3, 3-Methoxyaniline 589-16-2, 4-Ethylaniline 590-93-2, 2-Butynoic acid 591-19-5, 3-Bromoaniline 591-20-8, 3-Bromophenol 591-27-5, 3-Aminophenol 609-21-2, 4-Amino-2,6-dibromophenol 615-55-4, 3,4-Dibromoaniline 621-33-0, 3-Ethoxyaniline 626-01-7, 3-Iodoaniline 632-02-0, 3-Chloropropyl p-toluenesulfonate 645-08-9, 3-Hydroxy-4-methoxybenzoic acid 656-64-4, 3-Bromo-4-fluoroaniline 814-68-6, Acryloyl chloride 920-46-7, Methacryloyl chloride 1535-73-5, 3-Trifluoromethoxyaniline 1609-93-4, cis-3-Chloroacrylic acid 1687-53-2, 5-Amino-2-methoxyphenol 1783-81-9, 3-(Methylthio)aniline 1877-77-6, 3-Aminobenzyl alcohol 2170-03-8, Itaconic anhydride 2237-30-1, 3-Aminobenzonitrile 2835-68-9, 4-Aminobenzamide 2835-95-2, 3-Hydroxy-4-methylaniline 2835-97-4 2835-98-5, 6-Amino-m-cresol 2835-99-6 2987-53-3, 2-(Methylmercapto)aniline 3096-71-7, 4-Amino-2,5-dimethylphenol 3171-45-7 3177-80-8 3544-24-9, 3-Aminobenzamide 3575-32-4, N,N-Dimethyl-1,3-phenylenediamine dihydrochloride 3586-12-7, 3-Phenoxyaniline 3863-11-4, 3,4-Difluoroaniline 3943-74-6, Methyl vanillate 3964-52-1, 4-Amino-2-chlorophenol 4403-69-4, 2-Aminobenzylamine 4432-44-4 4637-24-5 5035-82-5, Methyl 3,4,5-trimethoxyanthranilate 5339-85-5 5345-54-0, 3-Chloro-p-anisidine 5369-16-4, 3-Isopropylaniline 5763-61-1, 3,4-Dimethoxybenzylamine 5930-28-9, 4-Amino-2,6-dichlorophenol 6100-60-3, 3-Hydroxy-4-methoxyphenol 6315-89-5, 4-Aminoveratrole 6482-24-2, 2-Bromoethyl methyl ether 7357-67-7, N-(3-Chloropropyl)morpholine 7745-91-7, 3-Bromo-4-methylaniline 10269-01-9, 3-Bromobenzylamine 13066-95-0, 4-Aminoresorcinol 13535-01-8, 3-Amino-5-bromopyridine 13669-62-0 17609-80-2, 4-Amino-3-chlorophenol 20197-71-1 20629-35-0, 4-Bromocrotonic acid 24303-64-8, 4-Methoxy-2-butynoic acid 32631-26-8, 3-Chloro-4-(phenylthio)aniline 38346-95-1 38346-97-3 50472-10-1, 2-Amino-3,6-dimethoxybenzoic acid 51544-74-2, 4-Bromocrotonyl chloride 52130-17-3, 3-Amino-2-methylbenzoic acid 53222-92-7, 3-Amino-o-cresol 54060-30-9, 3-Ethynylaniline 55120-56-4 57946-56-2, 4-Chloro-2-fluoroaniline 61882-45-9, 4-Methoxycrotonyl chloride 72235-53-1, 3,4-Difluorobenzylamine 83647-42-1, 3-Amino-2-methylbenzyl alcohol 84478-72-8, 4-Chloro-2-fluoro-5-hydroxyaniline 102245-65-8 118764-05-9 124623-36-5 141772-40-9 179688-27-8 184356-52-3 214477-50-6 214477-76-6 214483-18-8 214483-20-2 214487-26-0 214487-27-1 214487-28-2 214487-29-3 214487-30-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)

IT 2458-24-4P 3535-24-8P 6702-50-7P, Methyl 3-hydroxy-4-methoxybenzoate 13436-14-1P 26893-14-1P 27333-44-4P

30199-65-6P 50413-49-5P 54358-89-3P 61338-35-0P
71083-59-5P 71083-64-2P 71083-71-1P 73387-74-3P
97966-31-9P 111627-40-8P 113290-32-7P 214470-27-6P
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214470-72-1P 214470-75-4P 214470-78-7P 214470-85-6P
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214471-73-5P 214471-93-9P 214472-17-0P 214472-37-4P
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214476-68-3P 214476-69-4P 214476-70-7P 214476-71-8P
214476-77-4P 214476-78-5P 214476-89-8P 214476-99-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of protein **tyrosine kinase**)

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L12 SCR 2043
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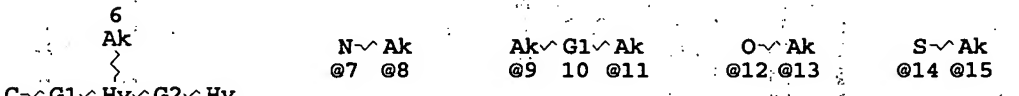
L19 STR



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VAR G2=AK/O/N/S/9-3 11-5/7-3 8-5/7-5 8-3/12-3 13-5/12-5 13-3/14-3 15-5
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 3
GGCAT IS UNS AT 5
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E5 C E1 N AT 3
ECOUNT IS M5-X9 C M1-X2 N AT 5
ECOUNT IS M1-X3 C AT 6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L26 SCR 2023
L32 SCR 1839 AND 1993 AND 1122 AND 1589
L35 SCR 2009
L36 SCR 1953
L38 465 SEA FILE=REGISTRY SSS FUL L19 AND L32 NOT L12 NOT L13 NOT L26 NOT L35 NOT L36
L40 STR

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N~Ak       Ak~G1~Ak       O~Ak       S~Ak
@7  @8     @9  10 @11     @12 @13    @14 @15
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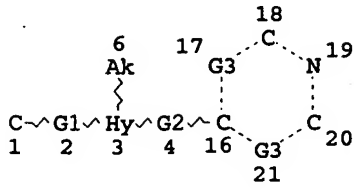

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VAR G2=AK/O/N/S/9-3 11-16/7-3 8-16/7-16 8-3/12-3 13-16/12-16 13-3/14-3
15-16
VAR G3=C/N
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E5 C  E1 N  AT   3
ECOUNT  IS M1-X3 C  AT   6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  20

STEREO ATTRIBUTES: NONE
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L43              STR
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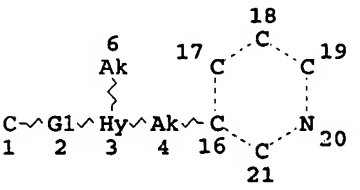

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VAR G1=N/O/S
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E5 C  E1 N  AT   3
ECOUNT  IS M1-X3 C  AT   6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  11

STEREO ATTRIBUTES: NONE
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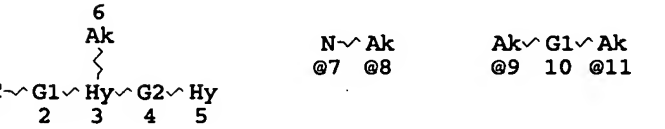
L48           23 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L42
L49            9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L45
L50           30 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L48 OR L49
L53        33153 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANGIOGEN? OR ANGIO(A)G
                 ENES?
L54              QUE  ABB=ON  PLU=ON  INHIBIT? OR HINDER? OR IMPED? OR A
                 RREST? OR REDUC? OR REDN# OR RESIST? OR SUPPRESS? OR RE
```

```
                TARD? OR PROHIBIT? OR PREVENT? OR BLOCK? OR ELIMINAT? O
                R LESS? OR ABAT? OR DEPRESS? OR DIMINISH? OR CURTAIL? O
                R ABSEN?
L55         11576 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L54(2A)L53
L58         39407 SEA FILE=HCAPLUS ABB=ON  PLU=ON  TYROSIN?(A)KINAS?
L59         10084 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L54(3A)L58
L62          2680 SEA FILE=HCAPLUS ABB=ON  PLU=ON  VEGF(A)RECEPTOR?
L63           346 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L62(2A)L58
L72               SCR 1839 AND 1993 AND 1589
L74               SCR 1122 OR 1044
L87               STR
```




```
VAR G1=N/O/S
VAR G2=AK/O/N/S/9-3 11-5/7-3 8-5/7-5 8-3/12-3 13-5/12-5 13-3/14-3 15-5
NODE ATTRIBUTES:
NSPEC   IS RC     AT   1
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT   5
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M5-X9 C  M1-X2 N  AT   5

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L89          9238 SEA FILE=REGISTRY SSS FUL L87 AND L72 AND L74 NOT (L12
                  OR L13)
L93               STR
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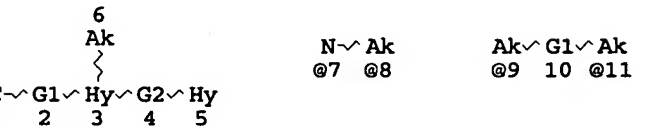


```
VAR G1=N/O/S
VAR G2=AK/O/N/S/9-3 11-5/7-3 8-5/7-5 8-3/12-3 13-5/12-5 13-3/14-3 15-5
NODE ATTRIBUTES:
NSPEC   IS RC     AT   1
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT   5
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M5-X9 C  M1-X2 N  AT   3
ECOUNT  IS M5-X9 C  M1-X2 N  AT   5
ECOUNT  IS M1-X3 C  AT   6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  15

STEREO ATTRIBUTES: NONE
L95          4441 SEA FILE=REGISTRY SUB=L89 SSS FUL L93
L108          783 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L95
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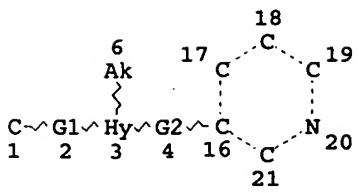
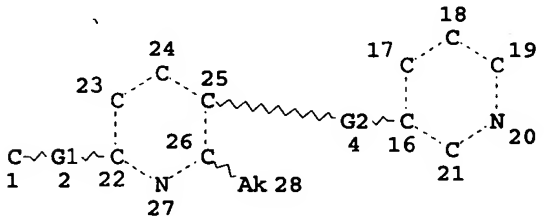
L110 STR



VAR G1=N/O/S
REP G2=(1-3) CH2
NODE ATTRIBUTES:
NSPEC IS RC AT 1
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 3
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X3 C AT 6

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L112 78 SEA FILE=REGISTRY SUB=L95 SSS FUL L110
L113 47 SEA FILE=HCAPLUS ABB=ON PLU=ON L112
L115 STR



VAR G1=N/O/S
REP G2=(1-3) CH2
NODE ATTRIBUTES:
NSPEC IS RC AT 1
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X3 C AT 28

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L117 15 SEA FILE=REGISTRY SUB=L95 SSS FUL L115
L118 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L117
L120 71 SEA FILE=HCAPLUS ABB=ON PLU=ON L50 OR L113
L122 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L55 AND L120
L123 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L122 OR L118
L124 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L120 AND L59
L125 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L120 AND L53
L126 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L120 AND L58
L127 4 SEA FILE=HCAPLUS ABB=ON PLU=ON (L123 OR L124 OR L125 OR L126)
L128 457 SEA FILE=HCAPLUS ABB=ON PLU=ON L108 AND L54

```
L129         22 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L108 AND L59
L130          2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L108 AND L63
L131         24 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L108 AND L58
L132          3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L108 AND L62
L134          6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L127 OR L130 OR L132
L135         22 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L128 AND L129
L136         26 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L135 OR L131 OR L134
L137         24 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L136 NOT L118
L138         20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L137 NOT (L134 OR
               L118)

=> d l138 1-20 cbib abs hitstr hitind

L138 ANSWER 1 OF 20  HCAPLUS  COPYRIGHT 2005 ACS on STN
2005:160840  Document No. 142:261527  Preparation of thienopyridines
     and furopyridines as protein kinase inhibitors.
     Betschmann, Patrick; Burchat, Andrew F.; Calderwood, David J.;
     Curtin, Michael L.; Davidsen, Steven K.; Davis, Heather M.; Frey,
     Robin R.; Heyman, Howard R.; Hirst, Gavin C.; Hrnciar, Peter;
     Michaelides, Michael R.; Muckey, Melanie A.; Rafferty, Paul; Wada,
     Carol K. (USA).  U.S. Pat. Appl. Publ. US 2005043347 A1 20050224,
     181 pp.  (English).  CODEN: USXXCO.  APPLICATION: US 2004-899168
     20040726.  PRIORITY: US 2003-2003/PV48973U 20030724; US
     2004-2004/PV567703 20040503.
GI
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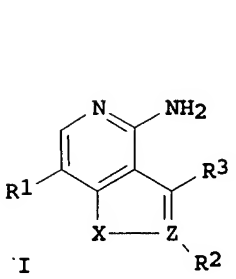
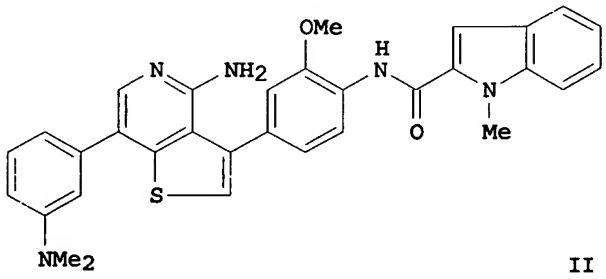


I



II

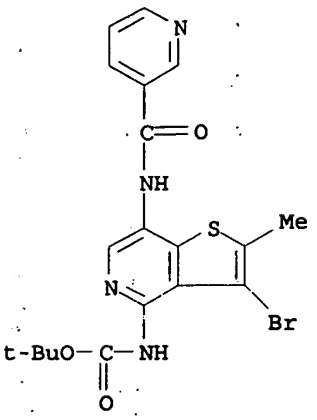
AB Title compds. I [wherein X = O, S; Z = C or N; R1 = H, alkenyl, alkoxyalkynyl, aryl, etc.; R2 = **absence**, H or alkyl; R3 = halo, (un)substituted (hetero)aryl or heterocyclyl, and therapeutically acceptable salts thereof] were prepared as protein kinase **inhibitors**. For example, urea II was synthesized via Pd-catalyzed coupling reaction of the corresponding 7-iodo-thienopyridine with [3-(dimethylamino)phenyl]boronic acid. Representative compds. I **inhibited** KDR and Lck at IC50 values of 0.002 μM to 50 μM and 0.03 μM to 50 μM, resp. Therefore, I and their pharmaceutical compns. are useful for the treatment of such as cancer, ocular and cardiovascular diseases.

IT **832694-99-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

RN 832694-99-2 HCAPLUS

CN Carbamic acid, [3-bromo-2-methyl-7-[(3-pyridinylcarbonyl)amino]thieno[3,2-c]pyridin-4-yl]-,

1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IC ICM C07D491-02
ICS C07D498-02; A61K031-4743; A61K031-4741; A61K031-4745
INCL 514301000; 514302000; 546114000; 546115000
CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63
ST thienopyridine furopyridine prepn protein kinase KDR Lck **inhibitor**; cancer ocular cardiovascular disease treatment thienopyridine furopyridine prepn
IT Inflammation
(Crohn's disease, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Intestine, disease
(Crohn's, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Bone, disease
(Paget's, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(c-kit, **inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Lung, disease
(chronic obstructive, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Inflammation
(chronic, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Anti-inflammatory agents
(chronic; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Uterus, disease
(endometriosis, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fyn, **inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gene lyn, **inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT Inflammation
Kidney, disease
(glomerulonephritis, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Capillary vessel, disease
(hereditary hemorrhagic telangiectasia, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Infection
(herpes zoster, treatment of infection from; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Ovary, disease
(hyperstimulation syndrome, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Blood, disease
(hyperviscosity syndrome, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Intestine, disease
(inflammatory, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Menstrual disorder
(menorrhagia, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Skin, disease
(pemphigoid, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Kidney, disease
(polycystic, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Nerve, disease
(polyneuropathy, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Anti-ischemic agents
Antiarthritics
Antiasthmatics
Antidiabetic agents
Antirheumatic agents
Antitumor agents
Antiviral agents
Cardiovascular agents
Diuretics
Human
Immunosuppressants
Protozoacides
(preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Brain, disease
(stroke, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Arthritis
Synovial membrane, disease
(synovitis, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Lupus erythematosus
(systemic, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Inflammation
Thyroid gland, disease
(thyroiditis, treatment of; preparation of thienopyridines and

furopyridines as protein kinase **inhibitors**)
IT Infection
(toxoplasmosis, treatment of infection from; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Injury
(trauma, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Human herpesvirus
Human immunodeficiency virus
Parapoxvirus
Protozoa
(treatment of infection from; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Asthma
Burn
Cardiovascular system, disease
Cirrhosis
Diabetes mellitus
Edema
Eye, disease
Fibrosis
Hypoxia
Ischemia
Lyme disease
Multiple sclerosis
Neoplasm
Osteoarthritis
Preeclampsia
Psoriasis
Rheumatoid arthritis
Sarcoidosis
Sepsis
Sickle cell anemia
Transplant rejection
(treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Vascular endothelial growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type VEGFR-2, **inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Infection
(viral; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Nervous system, neoplasm
(von Hippel-Lindau disease, treatment of; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Platelet-derived growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(α, **inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT Platelet-derived growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(β, **inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)
IT 108891-60-7, CSF-1 receptor **tyrosine kinase**
114051-78-4 138359-29-2, Ckit kinase 141349-91-9, Yes kinase
141350-03-0, FLT-1 kinase 144638-77-7, Protein kinase, FLT-4
144697-17-6 144941-32-2 144941-35-5, Blk **tyrosine kinase** 145539-86-2, Hck Kinase 147230-71-5, FLT3 receptor **tyrosine kinase** 148047-29-4, Tie-2

kinase 150316-07-7, Cot kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitor**; preparation of thienopyridines and
furopyridines as protein kinase **inhibitors**)

IT 832694-06-1P 832694-07-2P 832694-11-8P 832694-12-9P
832694-19-6P 832694-20-9P 832695-07-5P 832695-10-0P
832695-31-5P 832695-36-0P 832695-40-6P 832695-42-8P
832695-46-2P 832695-48-4P 832696-15-8P 832696-50-1P
832696-69-2P 832696-71-6P 832696-95-4P 832697-81-1P
832697-99-1P 832698-00-7P 832698-04-1P 845870-49-7P,
3-(4-Aminophenyl)-7-[4-(methylsulfonyl)phenyl]thieno[3,2-c]pyridin-
4-amine 845870-53-3P, 3-[4-(Methylamino)phenyl]thieno[3,2-
c]pyridin-4-amine 845870-89-5P, tert-Butyl 3-[4-amino-3-[4-[[[(3-
methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-
yl]benzoate 845870-90-8P, Methyl 4-[4-amino-3-[4-[[[(3-
methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-
yl]benzoate 845870-99-7P, 3-(4-Aminophenyl)-7-(1,3-benzodioxol-5-
yl)thieno[3,2-c]pyridin-4-amine 845871-03-6P, Methyl
4-amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno
[3,2-c]pyridine-7-carboxylate 845871-05-8P, 4-Amino-3-[4-[[[(3-
methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-
carboxylic acid 845871-39-8P, N-[3-[4-Amino-3-(4-
aminophenyl)thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]isonicotinamide
845871-45-6P, N-[3-[4-Amino-3-(4-aminophenyl)thieno[3,2-c]pyridin-
7-yl]prop-2-ynyl]methanesulfonamide 845871-59-2P,
3-(4-Aminophenyl)-7-[3-(diisopropylamino)prop-1-ynyl]thieno[3,2-
c]pyridin-4-amine 845871-66-1P, 3-(4-Aminophenyl)-7-(3-
furyl)thieno[3,2-c]pyridin-4-amine 845872-94-8P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]-N-[(pyrrolidin-2-yl)methyl]thieno[3,2-
c]pyridine-7-carboxamide 845872-97-1P, 4-Amino-3-[3-methoxy-4-
[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-(piperidin-3-
yl)thieno[3,2-c]pyridine-7-carboxamide 845872-98-2P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]-N-[(piperidin-4-yl)methyl]thieno[3,2-
c]pyridine-7-carboxamide 845873-00-9P 845873-02-1P
845873-07-6P, N-[4-[7-Amino-4-[[(dimethylamino)methylene]amino]thi
eno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-
carboxamide 845873-12-3P, N-[4-[4-Amino-7-((1E)-4-hydroxybut-1-
enyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-
indole-2-carboxamide 845873-13-4P, tert-Butyl
[4-(4-aminofuro[3,2-c]pyridin-3-yl)-2-methoxyphenyl]carbamate
845873-14-5P, tert-Butyl [4-(4-amino-7-iodofuro[3,2-c]pyridin-3-
yl)-2-methoxyphenyl]carbamate 845873-15-6P, 3-(4-Amino-3-
methoxyphenyl)-7-iodofuro[3,2-c]pyridin-4-amine 845873-16-7P,
N-[4-(4-Amino-7-iodofuro[3,2-c]pyridin-3-yl)-2-methoxyphenyl]-1-
methyl-1H-indole-2-carboxamide 845873-17-8P,
N-[4-(4-Amino-7-iodofuro[3,2-c]pyridin-3-yl)-2-methoxyphenyl]-1-
methyl-1H-benzimidazole-2-carboxamide 845873-19-0P,
N-[4-[4-Amino-7-((1E)-3-oxoprop-1-enyl)furo[3,2-c]pyridin-3-yl]-2-
methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide
845873-20-3P 845873-25-8P, N-[4-[4-Amino-7-(4-
formylphenyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-
1H-indole-2-carboxamide 845873-26-9P 845873-30-5P
845873-34-9P 845873-65-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-
indol-2-yl)carbonyl]amino]phenyl]-N-[(piperidin-3-
yl)methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-22-8P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-(pyrrolidin-3-yl)amide 845874-24-0P, 4-Amino-3-[3-methoxy-4-
[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-
c]pyridine-7-carboxylic acid N-[(piperidin-2-yl)methyl]amide

845874-30-8P 845874-62-6P, 4-Amino-N-(2,2-dimethoxyethyl)-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845874-63-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-(2-oxoethyl)thieno[3,2-c]pyridine-7-carboxamide 845875-51-6P, N-[4-[4-Amino-7-[(1E)-4-[(tetrahydro-2H-pyran-2-yl)oxy]but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-53-8P 845875-58-3P 845876-59-7P, N-[4-[4-Amino-7-[(diphenylmethylene)amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-61-1P, N-[4-[4-[[(Dimethylamino)methylene]amino]-7-[(diphenylmethylene)amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-81-5P, Ethyl 2-[4-amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]cyclopropanecarboxylate 845876-83-7P, 2-[4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]cyclopropanecarboxylic acid 845876-91-7P, 3-(4-Phenoxyphenyl)isoxazolo[4,5-c]pyridin-4-amine
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(**inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**).

IT 796967-48-1P, N-[4-(4,4,5,5-Tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 832693-89-7P
832693-92-2P 832693-93-3P 832693-94-4P 832693-95-5P
832693-96-6P 832693-98-8P 832693-99-9P 832694-00-5P
832694-02-7P 832694-05-0P 832694-08-3P 832694-13-0P
832694-14-1P 832694-15-2P 832694-21-0P 832694-22-1P
832694-24-3P 832694-25-4P 832694-26-5P 832694-27-6P
832694-28-7P 832694-29-8P 832694-30-1P 832694-31-2P
832694-32-3P 832694-33-4P 832694-34-5P 832694-35-6P
832694-36-7P 832694-37-8P 832694-38-9P 832694-39-0P
832694-40-3P 832694-41-4P 832694-42-5P 832694-43-6P
832694-44-7P 832694-45-8P 832694-46-9P 832694-47-0P
832694-48-1P 832694-49-2P 832694-50-5P 832694-51-6P
832694-52-7P 832694-53-8P 832694-54-9P 832694-55-0P
832694-56-1P 832694-57-2P 832694-58-3P 832694-59-4P
832694-60-7P 832694-61-8P 832694-62-9P 832694-63-0P
832694-64-1P 832694-65-2P 832694-66-3P 832694-67-4P
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832695-94-0P 832695-95-1P 832695-97-3P 832695-98-4P,
N-[4-[4-Amino-7-[2-(3-pyridinyl)ethynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 832695-99-5P 832696-01-2P

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832696-55-6P, N-[4-[4-Amino-7-[(1E)-3-[4-(2-hydroxyethyl)piperidin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 832696-56-7P 832696-58-9P
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832697-29-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 832697-30-0P 832697-31-1P 832697-32-2P 832697-33-3P
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832698-27-8P 832698-28-9P 832698-29-0P 832698-30-3P
832698-31-4P 832698-32-5P 832698-33-6P, N-[4-[4-Amino-7-[(1E)-3-[N-(1-methylpiperidin-4-yl)-N-methylamino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide
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832698-46-1P 832698-48-3P 832698-49-4P 832698-50-7P
832698-52-9P 832698-54-1P 832698-56-3P 832698-57-4P

832698-59-6P 832698-60-9P, N-[4-[4-Amino-7-[(1E)-3-[4-[3-(diethylamino)propyl]piperazin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 832698-61-0P 832698-62-1P, N-[4-[4-Amino-7-[(1E)-3-[4-(1-methylpiperidin-4-yl)piperazin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 832698-63-2P 832698-64-3P, N-[4-[4-Amino-7-[(1E)-3-[4-[2-(piperidin-1-yl)ethyl]piperazin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 832698-65-4P 832698-66-5P 832698-68-7P 832698-71-2P 832698-72-3P, N-[4-[4-Amino-7-[(1E)-3-[4-(3-morpholinopropyl)piperazin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 832698-73-4P 832698-74-5P 832698-76-7P 832698-78-9P 832698-79-0P 832698-83-6P 832698-85-8P 832698-87-0P 832698-89-2P 832698-91-6P 832698-92-7P 832698-96-1P 832698-98-3P 832699-01-1P 832699-03-3P 832699-05-5P 832699-07-7P 832699-09-9P 832699-11-3P 832699-14-6P 832699-16-8P 832699-18-0P 832699-19-1P 832699-20-4P 832699-21-5P 832699-22-6P 832699-23-7P 832699-24-8P 832699-25-9P 832699-26-0P 832699-27-1P 832699-28-2P 832699-29-3P 832699-30-6P 832699-31-7P 832699-32-8P 832699-33-9P 832699-34-0P 832699-35-1P 832699-36-2P 832699-37-3P 832699-38-4P 832699-39-5P 832699-40-8P 832699-41-9P 832699-42-0P 832699-43-1P 832699-44-2P 832699-45-3P 832699-46-4P 832699-47-5P 832699-48-6P 832699-49-7P 832699-50-0P 832699-51-1P 832699-52-2P 832699-53-3P 832699-55-5P 832699-57-7P 832699-59-9P 832699-60-2P 832699-61-3P 832699-62-4P 832699-63-5P 832699-64-6P 832699-65-7P 832699-66-8P 832699-67-9P 833446-48-3P 833446-49-4P 833446-50-7P 845870-36-2P, 3-(4-Aminophenyl)-7-[4-(ethylsulfonyl)phenyl]thieno[3,2-c]pyridin-4-amine 845870-41-9P, 3-(4-Aminophenyl)-7-[3-(methylsulfonyl)phenyl]thieno[3,2-c]pyridin-4-amine 845870-45-3P, 3-(4-Aminophenyl)-7-[3-(ethylsulfonyl)phenyl]thieno[3,2-c]pyridin-4-amine 845870-51-1P, 3-[4-Amino-3-(4-aminophenyl)thieno[3,2-c]pyridin-7-yl]phenol 845870-57-7P, N-[4-[4-Amino-7-[3-(piperidin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-59-9P, N-[4-[4-Amino-7-[3-(dimethylamino)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-60-2P, N-[4-[4-Amino-7-[3-(4-methylpiperazin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-61-3P, N-[4-[4-Amino-7-[3-(3-oxopiperazin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-63-5P, N-[4-[4-Amino-7-[4-(methylsulfonyl)phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-64-6P, N-[4-[4-Amino-7-[4-(ethylsulfonyl)phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-65-7P, N-[4-[4-Amino-7-(3-methylphenyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-66-8P, N-[4-[4-Amino-7-(4-methylphenyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-67-9P, N-[4-[4-Amino-7-((E)-2-phenylethenyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-69-1P, N-[4-[4-Amino-7-[4-(methylthio)phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-71-5P, N-[4-[4-Amino-7-(3-hydroxyphenyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-73-7P, N-[4-[4-Amino-7-[3-(methylsulfonyl)phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-75-9P, N-[4-[4-Amino-7-[3-(ethylsulfonyl)phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-

methylphenyl)urea 845870-77-1P, N-[4-[4-Amino-7-(3,4-dimethoxyphenyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-79-3P, 4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]-N-methylbenzamide 845870-81-7P, N-[4-[4-Amino-7-(benzo[b]thien-2-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-82-8P, N-[4-[7-(4-Acetylphenyl)-4-aminothieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-83-9P, N-[4-[7-(3-Acetylphenyl)-4-aminothieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-84-0P, N-[4-[4-Amino-7-(3-cyanophenyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-85-1P, 4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]benzamide 845870-86-2P, 3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]benzamide 845870-87-3P, N-[4-[4-Amino-7-(3-furyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-88-4P, N-[4-[4-Amino-7-(3,4,5-trimethoxyphenyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845870-91-9P, 4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]benzoic acid 845870-93-1P, 3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]benzoic acid trifluoroacetate 845870-94-2P, N-[4-[4-Amino-7-[4-(methylsulfonyl)phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-chlorophenyl)urea 845870-95-3P, N-[4-[4-Amino-7-[4-(methylsulfonyl)phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845870-96-4P, N-[4-[4-Amino-3-[4-[[[(3-chlorophenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]acetamide 845870-97-5P, N-[4-[4-Amino-3-[4-[[[(2-fluoro-5-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]acetamide 845870-98-6P, N-[4-[4-Amino-3-[4-[[[[3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]acetamide 845871-00-3P, N-[4-[4-Amino-7-(1,3-benzodioxol-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845871-01-4P, N-[4-[4-Amino-7-(1,3-benzodioxol-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 845871-02-5P, N-[4-[4-Amino-7-(1,3-benzodioxol-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-chlorophenyl)urea 845871-06-9P, 4-Amino-N-methyl-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845871-07-0P, 4-Amino-N,N-dimethyl-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845871-08-1P, N-[4-[4-Amino-7-[(4-methylpiperazin-1-yl)carbonyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845871-09-2P, 4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]-N-[(pyridin-3-yl)methyl]thieno[3,2-c]pyridine-7-carboxamide 845871-10-5P, 4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845871-11-6P, N-[3-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-phenylurea 845871-13-8P, N-[3-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-(3-methylphenyl)urea 845871-14-9P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-(4-methylphenyl)urea 845871-15-0P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-(2-methylphenyl)urea 845871-16-1P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N-methyl-N'-(3-methylphenyl)urea 845871-17-2P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]benzamide 845871-18-3P 845871-19-4P 845871-20-7P 845871-21-8P 845871-22-9P 845871-23-0P 845871-24-1P 845871-25-2P 845871-26-3P 845871-27-4P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation);

THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 845871-28-5P 845871-29-6P 845871-30-9P 845871-31-0P
845871-32-1P 845871-33-2P 845871-34-3P 845871-35-4P
845871-36-5P 845871-37-6P 845871-38-7P 845871-40-1P,
N-[3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]isonicotinamide
845871-41-2P, N-[3-[4-Amino-3-[4-[[[(3-chlorophenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]isonicotinamide 845871-42-3P,
N-[3-[4-Amino-3-[4-[[[[2-fluoro-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]isonicotinamide 845871-43-4P, N-[3-[4-Amino-3-[4-[[[(2-fluoro-5-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]isonicotinamide 845871-44-5P,
N-[3-[4-Amino-3-[4-[[[[3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]isonicotinamide
845871-46-7P, N-[3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]methanesulfonamide 845871-47-8P,
N-[3-[4-Amino-3-[4-[[[(2-fluoro-5-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]methanesulfonamide
845871-48-9P, N-[3-[4-Amino-3-[4-[[[(3-chlorophenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]methanesulfonamide 845871-49-0P,
N-[3-[4-Amino-3-[4-[[[[3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]methanesulfonamide 845871-50-3P, N-[3-[4-Amino-3-[4-[[[[2-fluoro-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]methanesulfonamide
845871-51-4P, N-[4-[4-Amino-7-(pyrimidin-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845871-52-5P,
N-[4-[4-Amino-7-(pyrimidin-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-fluorophenyl)urea 845871-53-6P, N-[4-[4-Amino-7-(pyrimidin-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-fluoro-4-methylphenyl)urea 845871-54-7P, N-[4-[4-Amino-7-(thien-3-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-chlorophenyl)urea
845871-55-8P, N-[4-[4-Amino-7-(thien-3-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[2-fluoro-5-(trifluoromethyl)phenyl]urea
845871-56-9P, N-[4-[4-Amino-7-(thien-3-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 845871-57-0P,
N-[4-[4-Amino-7-(thien-3-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-fluorophenyl)urea 845871-58-1P, N-[4-[4-Amino-7-(thien-3-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845871-60-5P, N-[4-[4-Amino-7-[3-(diisopropylamino)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845871-61-6P, N-[4-[4-Amino-7-[3-(diisopropylamino)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-fluorophenyl)urea 845871-62-7P, N-[4-[4-Amino-7-[3-(diisopropylamino)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 845871-63-8P,
N-[4-[4-Amino-7-[3-(diisopropylamino)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[2-fluoro-5-(trifluoromethyl)phenyl]urea
845871-64-9P, N-[4-[4-Amino-7-[3-(diisopropylamino)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-chlorophenyl)urea
845871-65-0P, N-[4-[4-Amino-7-[3-(diisopropylamino)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845871-67-2P, N-[4-[4-Amino-7-(3-furyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-chlorophenyl)urea
845871-68-3P, N-[4-[4-Amino-7-(3-furyl)thieno[3,2-c]pyridin-3-

yl]phenyl]-N'-(3-fluorophenyl)urea 845871-69-4P, N-[4-[4-Amino-7-(3-furyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 845871-70-7P, N-[4-[4-Amino-7-(3-furyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845871-71-8P, N-[4-[4-Amino-7-(3-furyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluorophenyl)urea 845871-72-9P, N-[4-[4-Amino-7-(3-fluoropyridin-4-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[2-fluoro-5-(trifluoromethyl)phenyl]urea 845871-73-0P, N-[4-[4-Amino-7-[3-(4-methylpiperazin-1-yl)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845871-74-1P, N-[4-[4-Amino-7-[3-(4-methylpiperazin-1-yl)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 845871-75-2P, N-[4-[4-Amino-7-[3-(4-methylpiperazin-1-yl)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[2-fluoro-5-(trifluoromethyl)phenyl]urea 845871-76-3P, N-[4-[4-Amino-7-[3-(4-methylpiperazin-1-yl)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-fluorophenyl)urea 845871-77-4P, N-[4-[4-Amino-7-[3-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845871-81-0P, N-[4-[4-Amino-7-[3-(pyrrolidin-1-ylmethyl)phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845871-82-1P, N-[4-[4-Amino-7-[3-[(diethylamino)methyl]phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845871-83-2P, N-[4-[4-Amino-7-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845871-84-3P, N-[4-[4-Amino-7-[4-[(diethylamino)methyl]phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845871-85-4P, N-[4-[4-Amino-7-[4-(pyrrolidin-1-ylmethyl)phenyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845871-86-5P, N-[4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]-3-(piperidin-1-yl)propanamide 845871-87-6P, N-[4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]-4-(dimethylamino)butanamide 845871-88-7P, N-[4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]-2-(dimethylamino)acetamide 845871-89-8P, N-[4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]-3-(dimethylamino)propanamide 845871-90-1P, N-[3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]-3-(piperidin-1-yl)propanamide 845871-91-2P, N-[3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]-2-(dimethylamino)acetamide 845871-92-3P, N-[3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]-3-(dimethylamino)propanamide 845871-93-4P, N-[3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]-4-(dimethylamino)butanamide 845871-94-5P, N-[4-[4-Amino-7-(2-methyl-1,3-benzothiazol-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-chlorophenyl)urea 845871-96-7P, N-[4-[4-Amino-7-(2-methyl-1,3-benzothiazol-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-fluorophenyl)urea 845871-97-8P, N-[4-[4-Amino-7-(2-methyl-1,3-benzothiazol-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845871-98-9P, N-[3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]prop-2-ynyl]-2-methylpropanamide 845871-99-0P, N-[4-[4-Amino-7-[3-(morpholin-4-yl)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-00-6P, N-[4-[4-Amino-7-[3-(cyclopropylmethoxy)prop-1-ynyl]thieno[3,2-

c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-01-7P, N-[4-[4-Amino-7-(phenylethynyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-02-8P, N'-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N-methyl-N-(3-methylphenyl)urea 845872-03-9P, N-[4-[4-Amino-7-(pyridin-4-ylethynyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[2-fluoro-5-(trifluoromethyl)phenyl]urea 845872-05-1P, N-[4-[4-Amino-7-(pyridin-4-ylethynyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845872-06-2P, N-[4-[4-Amino-7-(pyridin-4-ylethynyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-chlorophenyl)urea 845872-07-3P, N-[4-[4-Amino-7-(pyridin-4-ylethynyl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 845872-08-4P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-(3-methylphenyl)thiourea 845872-09-5P, N-[4-(4-Amino-2-methylthieno[3,2-c]pyridin-3-yl)phenyl]-N'-(2-fluoro-5-methylphenyl)urea 845872-11-9P, N-[4-(4-Amino-2-methylthieno[3,2-c]pyridin-3-yl)phenyl]-N'-[2-fluoro-5-(trifluoromethyl)phenyl]urea 845872-12-0P, N-[4-(4-Amino-2-methylthieno[3,2-c]pyridin-3-yl)phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 845872-13-1P, N-[4-[4-Amino-7-(1H-pyrazol-4-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-14-2P, 4-[4-Amino-3-(2-methyl-1H-indol-5-yl)thieno[3,2-c]pyridin-7-yl]benzonitrile 845872-15-3P, 7-(4-Aminophenyl)-3-(2-methyl-1,3-benzothiazol-5-yl)thieno[3,2-c]pyridin-4-amine 845872-16-4P, N-[4-[4-Amino-3-(benzo[b]furan-2-yl)thieno[3,2-c]pyridin-7-yl]phenyl]acetamide 845872-18-6P, N-[4-[4-Amino-3-(2,3-dihydro-1H-indol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]acetamide 845872-19-7P, N-[4-[4-Amino-3-(2-methyl-1,3-benzothiazol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]acetamide 845872-20-0P, 3-(2-Methyl-1H-indol-5-yl)-7-[4-(methylsulfonyl)phenyl]thieno[3,2-c]pyridin-4-amine 845872-21-1P, 7-[4-(Ethylsulfonyl)phenyl]-3-(2-methyl-1H-indol-5-yl)thieno[3,2-c]pyridin-4-amine 845872-22-2P, N-[4-[4-Amino-3-(benzo[b]furan-2-yl)thieno[3,2-c]pyridin-7-yl]phenyl]methanesulfonamide 845872-24-4P, N-[4-[4-Amino-3-(7-fluoro-1H-indol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]methanesulfonamide 845872-26-6P, N-[4-[4-Amino-3-(2-methyl-1,3-benzothiazol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]methanesulfonamide 845872-27-7P, N-[4-[4-Amino-3-(1H-indol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]methanesulfonamide 845872-28-8P, N-[4-[4-Amino-3-(2,3-dihydro-1H-indol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]methanesulfonamide 845872-29-9P, N-[4-[4-Amino-3-(2-methyl-1,3-benzoxazol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]methanesulfonamide 845872-31-3P, N-[4-[4-Amino-3-[4-(dimethylamino)phenyl]thieno[3,2-c]pyridin-7-yl]phenyl]methanesulfonamide 845872-32-4P, N-[4-[4-Amino-3-(2-methyl-1H-indol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]methanesulfonamide 845872-33-5P, 3-(2-Methyl-1H-indol-5-yl)-7-[3-(methylsulfonyl)phenyl]thieno[3,2-c]pyridin-4-amine 845872-34-6P, N-[4-(4-Aminofuro[3,2-c]pyridin-3-yl)phenyl]-N'-(3,5-dimethylphenyl)urea 845872-35-7P, N-[4-(4-Aminofuro[3,2-c]pyridin-3-yl)phenyl]-N'-(3,5-difluorophenyl)urea 845872-36-8P, N-(3-Acetylphenyl)-N'-[4-(4-aminofuro[3,2-c]pyridin-3-yl)phenyl]urea 845872-37-9P, N-[4-(4-Aminofuro[3,2-c]pyridin-3-yl)phenyl]-N'-cyclopentylurea 845872-38-0P, N-[4-(4-Aminofuro[3,2-c]pyridin-3-yl)phenyl]-N'-(3-cyanophenyl)urea 845872-39-1P, N-[4-(4-Aminofuro[3,2-c]pyridin-3-yl)phenyl]-N'-(2-naphthyl)urea 845872-40-4P, 4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]furo[3,2-c]pyridin-7-yl]-N-methylbenzamide 845872-41-5P, N-[4-[4-Amino-7-(4-cyanophenyl)furo[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-42-6P, N-[4-[4-Amino-7-(1,3-benzodioxol-5-yl)furo[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea

845872-43-7P, N-[4-[4-Amino-7-[4-(methylsulfonyl)phenyl]furo[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-44-8P, N-[4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]furo[3,2-c]pyridin-7-yl]phenyl]acetamide 845872-45-9P, N-[4-[4-Amino-7-(2-methyl-1,3-benzothiazol-5-yl)furo[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-46-0P, N-[4-[4-Amino-7-(2-methyl-1,3-benzoxazol-5-yl)furo[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-47-1P, 4-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]furo[3,2-c]pyridin-7-yl]benzamide 845872-48-2P, N-[4-[4-Amino-7-(benzo[b]thien-5-yl)furo[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-50-6P, N-[4-[4-Amino-7-[3-(morpholin-4-yl)prop-1-ynyl]furo[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-51-7P, N-[3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]furo[3,2-c]pyridin-7-yl]prop-2-ynyl]methanesulfonamide 845872-52-8P, N-[3-[4-Amino-3-[4-[[[(3-methylphenyl)amino]carbonyl]amino]phenyl]furo[3,2-c]pyridin-7-yl]prop-2-ynyl]-2-methylpropanamide 845872-53-9P, N-[4-[4-Amino-7-(3-amino-3-methylbut-1-ynyl)furo[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-54-0P, N-[4-[4-Amino-7-(2-methoxypyrimidin-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-55-1P, N-[4-[4-Amino-7-(2-methoxypyrimidin-5-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-chlorophenyl)urea 845872-56-2P, 3-(4-Aminophenyl)-7-(benzo[b]thien-2-yl)thieno[3,2-c]pyridin-4-amine 845872-57-3P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-2-(3-methylphenyl)acetamide 845872-58-4P, 2-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N-(3-methylphenyl)acetamide 845872-59-5P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-cyclopentylurea 845872-60-8P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-cyclohexylurea 845872-61-9P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-(1-naphthyl)urea 845872-62-0P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-(2-naphthyl)urea 845872-63-1P, 3-(2-Methyl-1H-indol-5-yl)-7-phenylthieno[3,2-c]pyridin-4-amine 845872-64-2P, N-[4-[4-Amino-7-[(4-methylpiperazin-1-yl)methyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-65-3P, 3-(4-Aminophenyl)-7-[2-(1H-benzimidazol-2-yl)vinyl]thieno[3,2-c]pyridin-4-amine 845872-67-5P, 7-(4-Aminophenyl)-3-(1H-indol-5-yl)thieno[3,2-c]pyridin-4-amine 845872-68-6P, N-[3-[4-Amino-3-(2-methyl-1H-indol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]methanesulfonamide 845872-69-7P, N-[4-[4-Amino-3-(2-methyl-1H-indol-5-yl)thieno[3,2-c]pyridin-7-yl]phenyl]acetamide 845872-70-0P, N-[4-[4-Amino-7-(pyridin-4-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-fluorophenyl)urea 845872-71-1P, N-[4-[4-Amino-7-(pyridin-4-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-chlorophenyl)urea 845872-72-2P, N-[4-[4-Amino-7-(pyridin-4-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 845872-73-3P, N-[4-[4-Amino-7-(pyridin-4-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(1,3-benzodioxol-5-yl)urea 845872-74-4P, N-[4-[4-Amino-7-(pyridin-4-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(thien-3-yl)urea 845872-75-5P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-(thien-3-yl)urea 845872-76-6P, N-[4-[4-Amino-7-[3-(4-methylpiperazin-1-yl)prop-1-ynyl]furo[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-77-7P, N-[4-[7-[(4-Acetylpiperazin-1-yl)carbonyl]-4-aminothieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-78-8P, N-[4-[4-Amino-7-[(4-isopropylpiperazin-1-yl)carbonyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-79-9P, N-[4-[4-Amino-7-[[4-(pyrimidin-2-yl)piperazin-1-

yl]carbonyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-80-2P, N-[4-[4-Amino-7-[(4-phenylpiperazin-1-yl)carbonyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-81-3P, N-[4-[4-Amino-7-[[4-(pyridin-4-yl)piperazin-1-yl]carbonyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-82-4P, N-[4-[4-Amino-7-[(4-ethylpiperazin-1-yl)carbonyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-83-5P, N-[4-[4-Amino-7-[[4-[2-(dimethylamino)ethyl]piperazin-1-yl]carbonyl]thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(3-methylphenyl)urea 845872-84-6P, N-[4-[4-Amino-7-(pyridin-4-yl)thieno[3,2-c]pyridin-3-yl]phenyl]-N'-(thien-2-yl)urea 845872-85-7P, N-[4-(4-Aminothieno[3,2-c]pyridin-3-yl)phenyl]-N'-(thien-2-yl)urea 845872-86-8P 845872-87-9P, N-[4-[4-Amino-7-[(1E)-3-(3-carboxyazetidin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845872-88-0P 845872-89-1P 845872-90-4P 845872-92-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[(aminocarbonyl)methyl]pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845872-93-7P, 4-Amino-N-[[1-(2-amino-2-oxoethyl)pyrrolidin-2-yl]methyl]-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide triacetate 845872-95-9P, 4-Amino-N-[[1-[2-(dimethylamino)-2-oxoethyl]pyrrolidin-2-yl]methyl]-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845872-96-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(methylsulfonyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845873-01-0P 845873-03-2P, 4-Amino-N-[2-(dimethylamino)ethyl]-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845873-04-3P, 4-Amino-N-[1-[3-(dimethylamino)-3-oxopropyl]piperidin-3-yl]-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845873-05-4P, N-[4-[4-Amino-7-[(thien-2-ylsulfonyl)amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-08-7P, N-[4-[4-Amino-7-[(anilinocarbonyl)amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-10-1P, N-[4-[4-Amino-7-[[[4-(2-hydroxyethyl)piperazin-1-yl]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-18-9P, N-[4-[4-Amino-7-((1E)-3-oxoprop-1-enyl)furo[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-21-4P 845873-22-5P 845873-23-6P 845873-24-7P, N-[4-[4-Amino-7-(3-formyl-2-furyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-27-0P, N-[4-[4-Amino-7-[5-[[[3-(dimethylamino)propyl](methyl)amino]methyl]-2-furyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-28-1P, N-[4-[4-Amino-7-[4-(hydroxymethyl)phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-29-2P, 3-Bromo-7-[1-(tert-butoxycarbonyl)pyrrol-2-yl]thieno[3,2-c]pyridin-4-amine 845873-32-7P, N-[4-[4-Amino-7-[5-(hydroxymethyl)-2-furyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-33-8P, N-[4-[4-Amino-7-[5-(diethylaminomethyl)furan-2-yl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-36-1P, N-[4-[4-Amino-7-[2-(hydroxymethyl)thien-3-yl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-37-2P, N-[4-[4-Amino-7-[2-(morpholinomethyl)thien-3-yl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-38-3P 845873-39-4P, N-[4-[4-Amino-7-[5-

(morpholin-4-ylmethyl)thien-2-yl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-41-8P , N-[4-[4-Amino-7-[4-methyl-5-(morpholin-4-ylmethyl)thien-2-yl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-44-1P, N-[4-[4-Amino-7-[3-[[4-(piperidino)piperidin-1-yl]methyl]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-45-2P, N-[4-[4-Amino-7-[3-[[4-(2-dimethylaminoethyl)piperazin-1-yl]methyl]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-46-3P 845873-47-4P, N-[4-[4-Amino-7-[3-[[(3-diethylaminopropyl)amino]methyl]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-48-5P, N-[4-[4-Amino-7-[3-[[[3-(2-oxopyrrolidin-1-yl)propyl]amino]methyl]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-49-6P 845873-50-9P, N-[4-[4-Amino-7-[3-[[[5-(diethylamino)pentyl]amino]methyl]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-51-0P, N-[4-[4-Amino-7-[3-[[[4-(diethylamino)butyl]amino]methyl]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-52-1P, N-[4-[4-Amino-7-[(3-aminomethyl)phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-53-2P, N-[4-[4-Amino-7-[[2-((dimethylamino)methyl)]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-54-3P, N-[4-[4-Amino-7-[[3-(2-carboxyethylen)]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-55-4P, N-[4-[4-Amino-7-[[3-[(methylsulfonyl)amino]]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-56-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[1-(tert-butoxycarbonyl)-piperidin-3-yl]amide 845873-57-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[[1-(tert-butoxycarbonyl)-piperidin-3-yl]methyl]amide 845873-58-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[3-(dimethylamino)-2,2-dimethylpropyl]amide 845873-59-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[3-((tert-butoxycarbonyl)amino)propyl]amide 845873-60-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-((tert-butoxycarbonyl)amino)ethyl]amide 845873-61-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[3-(N-methyl-N-(tert-butoxycarbonyl)amino)propyl]amide 845873-62-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(N-methyl-N-(tert-butoxycarbonyl)amino)ethyl]amide 845873-63-4P 845873-64-5P 845873-66-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[3-(methylamino)propyl]thieno[3,2-c]pyridine-7-carboxamide 845873-67-8P, 4-Amino-N-(3-aminopropyl)-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845873-68-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-(methylamino)ethyl]thieno[3,2-c]pyridine-7-carboxamide 845873-69-0P, 4-Amino-N-(2-aminoethyl)-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-

carboxamide 845873-70-3P 845873-71-4P 845873-72-5P
845873-73-6P 845873-74-7P 845873-75-8P, 4-Amino-3-[3-methoxy-4-
[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-
c]pyridine-7-carboxylic acid N-(1-ethylpiperidin-3-yl)amide
845873-77-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-(2-morpholinoethyl)amide 845873-78-1P, 4-Amino-3-[3-methoxy-4-
[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-
c]pyridine-7-carboxylic acid N-(2-methoxyethyl)amide
845873-79-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[2-(1-methylpyrrolidin-2-yl)ethyl]amide 845873-80-5P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[2-(pyridin-3-yl)ethyl]amide 845873-81-6P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[2-(piperidin-1-yl)ethyl]amide 845873-82-7P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[2-(diethylamino)ethyl]amide 845873-83-8P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[2-(2-oxopyrrolidin-1-yl)ethyl]amide 845873-84-9P
845873-85-0P 845873-86-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-
indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-
carboxylic acid N-[bis(hydroxymethyl)methyl]amide 845873-87-2P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[3-(pyrrolidin-1-yl)propyl]amide 845873-88-3P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-(cyclopropyl)amide 845873-89-4P 845873-90-7P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[2-(2-hydroxyethoxy)ethyl]amide 845873-91-8P 845873-92-9P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[[2-(diethylamino)ethyl](methyl)]amide 845873-93-0P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[2-(pyrrolidin-1-yl)ethyl]amide 845873-94-1P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[3-(2-methylpiperidin-1-yl)propyl]amide 845873-95-2P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[3-(4-methylpiperazin-1-yl)propyl]amide 845873-96-3P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-[(1,4-dimethylpiperazin-2-yl)methyl]amide 845873-97-4P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-(2-carboxyethyl)amide 845873-98-5P, 4-Amino-3-[3-methoxy-4-
[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-
c]pyridine-7-carboxylic acid N-[3-[(2-dimethylaminoethyl)amino]-3-
oxopropyl]amide 845873-99-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-
1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-
carboxylic acid N-(pyridin-3-yl)amide 845874-00-2P,
4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-
yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid
N-(pyridin-4-yl)amide 845874-01-3P, 4-Amino-3-[3-methoxy-4-[[(1-

methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(thiazol-2-yl)amide 845874-02-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(5-methylisoxazol-3-yl)amide 845874-03-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(4-cyano-1H-pyrazol-3-yl)amide 845874-04-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[4-((ethoxycarbonyl)methyl)thiazol-2-yl]amide 845874-05-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[5-(dimethylaminocarbonyl)-4-methylthiazol-2-yl]amide 845874-06-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(2-ethyl-2H-pyrazol-3-yl)amide 845874-07-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(isoxazol-3-yl)amide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 845874-08-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(6-aminopyridin-2-yl)amide 845874-09-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(5-aminocarbonylpyridin-2-yl)amide 845874-10-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(pyrimidin-4-yl)amide 845874-11-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(pyrazin-2-yl)amide 845874-12-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(1-methyl-1H-pyrazol-3-yl)amide 845874-13-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[4-[(piperidin-1-yl)methyl]thiazol-2-yl]amide 845874-14-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(pyridin-2-yl)amide 845874-15-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(1-(tert-butoxycarbonyl)piperidin-2-yl)ethyl]amide 845874-16-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[1-(tert-butoxycarbonyl)-pyrrolidin-3-yl]amide 845874-17-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[(1-(tert-butoxycarbonyl)pyrrolidin-2-yl)methyl]amide 845874-18-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[(1-(tert-butoxycarbonyl)pyrrolidin-3-yl)methyl]amide 845874-19-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[(1-(tert-butoxycarbonyl)piperidin-2-yl)methyl]amide 845874-20-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[1-(tert-butoxycarbonyl)-piperidin-4-yl]amide 845874-21-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-

yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(piperidin-2-yl)ethyl]amide 845874-23-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[(pyrrolidin-3-yl)methyl]amide 845874-25-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(piperidin-4-yl)amide 845874-26-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(2-ethylsulfanylethyl)amide 845874-27-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[3-(4H-imidazol-1-yl)propyl]amide 845874-28-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(1-hydroxybutyl)amide 845874-29-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(pyridin-2-ylmethyl)amide 845874-31-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(thiophen-2-yl)ethyl]amide 845874-32-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[(tetrahydrofuran-2-yl)methyl]amide 845874-33-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(2-ethoxyethyl)amide 845874-34-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(furan-2-ylmethyl)amide 845874-35-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(2-oxoimidazolidin-1-yl)ethyl]amide 845874-36-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(pyridin-2-yl)ethyl]amide 845874-37-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(2-hydroxybutyl)amide 845874-38-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[3-(2-oxopyrrolidin-1-yl)propyl]amide 845874-39-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(1H-imidazol-4-yl)ethyl]amide 845874-40-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(pyridin-4-yl)ethyl]amide 845874-41-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(pyridin-3-ylmethyl)amide 845874-42-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(1-methyl-1H-pyrrol-2-yl)ethyl]amide 845874-43-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[(tetrahydropyran-4-yl)methyl]amide 845874-44-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[(2,2-dimethyl-[1,3]dioxolan-4-yl)methyl]amide 845874-45-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(pyridin-4-ylmethyl)amide 845874-46-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(3-methyl-3H-imidazol-4-

yl)ethyl]amide 845874-47-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(2-hydroxypropyl)amide 845874-48-8P, [[[4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]carbonyl]amino]acetic acid 845874-49-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845874-53-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(2-hydroxyethyl)amide 845874-54-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[4-(acetylamino)butyl]amide 845874-55-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(2-thienylmethyl)amide 845874-56-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-([1,2,4]triazol-1-yl)ethyl]amide 845874-57-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-((aminocarbonyl)methyl)amide 845874-58-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(3-hydroxypropyl)amide 845874-59-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(2-isopropoxyethyl)amide 845874-60-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-(3-hydroxy-2,2-dimethylpropyl)amide 845874-61-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid N-[2-(2,4-dioxothiazolidin-3-yl)ethyl]amide 845874-64-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-(3-hydroxy-pyrrolidin-1-yl)ethyl]thieno[3,2-c]pyridine-7-carboxamide 845874-65-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-[(3-hydroxypropyl)amino]ethyl]thieno[3,2-c]pyridine-7-carboxamide 845874-66-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-(azetidin-1-yl)ethyl]thieno[3,2-c]pyridine-7-carboxamide 845874-67-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-[(2-methoxyethyl)amino]ethyl]thieno[3,2-c]pyridine-7-carboxamide 845874-68-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-[(2-hydroxyethyl)amino]ethyl]thieno[3,2-c]pyridine-7-carboxamide 845874-69-3P 845874-70-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-(2-methylpyrrolidin-1-yl)ethyl]thieno[3,2-c]pyridine-7-carboxamide 845874-71-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-(cyclopropylamino)ethyl]thieno[3,2-c]pyridine-7-carboxamide 845874-72-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-[(2-dimethylaminoethyl)amino]ethyl]thieno[3,2-c]pyridine-7-carboxamide 845874-73-9P 845874-74-0P 845874-75-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-[(2-hydroxypropyl)amino]ethyl]thieno[3,2-c]pyridine-7-carboxamide 845874-76-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(ethyl)pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-77-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2,3-dihydroxypropyl)pyrrolidin-2-

yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-78-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2,2-dimethylpropyl)pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-79-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2-methoxyethyl)pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-80-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[3-(dimethylamino)-2,2-dimethylpropyl]pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-81-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2-methylpropyl)pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-82-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(isopropyl)pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-83-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2-hydroxyethyl)pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-84-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(methyl)pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-85-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2-dimethylaminoethyl)pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-86-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[((dimethylamino)methyl)carbonyl]pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845874-87-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(2-methoxyethyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-88-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-[(aminocarbonyl)methyl]piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-89-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(3-amino-3-oxopropyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-90-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(2-aminoethyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-91-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(2-hydroxyethyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-92-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-[isobutyl]piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-93-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(2,2-dimethylpropyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-94-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-[3-(dimethylamino)-2,2-dimethylpropyl]piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-95-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(isopropyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-96-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(methyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-97-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(acetyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-98-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(dimethylsulfamoyl)piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845874-99-9P,

4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-[(dimethylamino)acetyl]piperidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-00-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[2-[(pyrrolidin-3-yl)amino]ethyl]thieno[3,2-c]pyridine-7-carboxamide 845875-01-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[isobutyl]piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-02-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[(aminocarbonyl)methyl]piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-03-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[3-(dimethylamino)-2,2-dimethylpropyl]piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-04-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2-methoxyethyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-05-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(ethyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-06-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2,3-dihydroxypropyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-07-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2,2-dimethylpropyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-08-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(acetyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-09-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(methylsulfonyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-10-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(imidazol-4-ylmethyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-11-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(dimethylsulfamoyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-12-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(isopropyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-13-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[(dimethylamino)acetyl]piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-14-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2-hydroxyethyl)piperidin-3-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-15-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[(carboxy)methyl]pyrrolidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-16-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(ethyl)piperidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-17-4P , 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[isobutyl]piperidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-18-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(methyl)piperidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-19-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-[(aminocarbonyl)methyl]piperidin-2-

yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-20-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2-hydroxyethyl)piperidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-21-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(3-amino-3-oxopropyl)piperidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-22-1P, N-[(1-Acetylpiperidin-2-yl)methyl]-4-amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845875-23-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(methylsulfonyl)piperidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-24-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(dimethylsulfamoyl)piperidin-2-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-25-4P 845875-26-5P 845875-27-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-[isobutyl]pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-28-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-[(1H-imidazol-4-yl)methyl]pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-29-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-[3-(dimethylamino)-2,2-dimethylpropyl]pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-30-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(carboxymethyl)pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-31-2P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(2,2-dimethylpropyl)pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-32-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(methyl)pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-33-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(isopropyl)pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-34-5P, N-(1-Acetylpyrrolidin-3-yl)-4-amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845875-35-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(2-amino-2-oxoethyl)pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-36-7P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(2-methoxyethyl)pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-37-8P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(dimethylsulfamoyl)pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-38-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(2-hydroxyethyl)pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-39-0P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[1-(3-amino-3-oxopropyl)pyrrolidin-3-yl]thieno[3,2-c]pyridine-7-carboxamide 845875-40-3P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(ethyl)piperidin-4-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-41-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2-methylpropyl)piperidin-4-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-42-5P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[[1-(2-amino-2-oxoethyl)piperidin-4-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-43-6P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-

yl)carbonyl]amino]phenyl]-N-[[1-(2-methoxyethyl)piperidin-4-yl]methyl]thieno[3,2-c]pyridine-7-carboxamide 845875-44-7P, N-[4-[4-Amino-7-[(1Z)-3-(diethylamino)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-45-8P, N-[4-[4-Amino-7-[(1E)-3-[(1-methylpyrrolidin-3-yl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-46-9P 845875-47-0P, N-[4-[4-Amino-7-[(1E)-3-[(4-(acetylamino)butyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-48-1P 845875-49-2P, N-[4-[4-Amino-7-[(1E)-3-[[((S)-1-(tert-butoxycarbonyl)pyrrolidin-3-yl)methyl]amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-52-7P, N-[4-[4-Amino-7-[(1E)-4-(dimethylamino)but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-54-9P, N-[4-[4-Amino-7-[(1E)-4-(piperazin-1-yl)but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-55-0P, N-[4-[4-Amino-7-[(1E)-4-(diethylamino)but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-56-1P 845875-57-2P, N-[4-[4-Amino-7-[(1E)-4-(4-acetylpiperazin-1-yl)but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-59-4P, N-[4-[4-Amino-7-[(1E)-4-[(1-(tert-butoxycarbonyl)pyrrolidin-3-yl)amino]but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-60-7P, N-[4-[4-Amino-7-[(1E)-4-[[2-(1-methylpyrrolidin-2-yl)ethyl]amino]but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-61-8P, N-[4-[4-Amino-7-[(1E)-4-(4-(2-hydroxyethyl)piperidin-1-yl)but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-62-9P, N-[4-[4-Amino-7-[(1E)-4-(4-methylpiperazin-1-yl)but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-63-0P, N-[4-[4-Amino-7-[(1E)-4-(ethylamino)but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-64-1P, N-[4-[4-Amino-7-[(1E)-4-(methylamino)but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-66-3P 845875-67-4P, N-[4-[4-Amino-7-[(1E)-4-(4-aminopiperidin-1-yl)but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-68-5P, N-[4-[4-Amino-7-[(1E)-4-[4-(aminomethyl)piperidin-1-yl]but-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-69-6P, N-[4-[4-Amino-7-[(1Z)-3-(4-methyl-3-oxopiperazin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-71-0P, N-[4-[4-Amino-7-[(1Z)-3-(4-methyl-5-oxo-1,4-diazepan-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-73-2P, N-[4-[4-Amino-7-[3-[(diethylamino)methyl]phenyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-74-3P, N-[4-[4-Amino-7-[(1E)-3-[4-[[(tert-butoxycarbonyl)amino]methyl]piperidin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-75-4P, N-[4-[4-Amino-7-[(1E)-3-(dimethylamino)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-76-5P, N-[4-[4-Amino-7-[(1E)-3-[N-(1-methylpyrrolidin-3-yl)-N-methylamino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-77-6P, N-[4-[4-Amino-7-[(1E)-3-[4-(2-hydroxyethyl)piperazin-1-yl]prop-1-enyl]furo[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845875-78-7P, N-[4-[4-Amino-7-[(1E)-3-(4-hydroxypiperidin-1-yl)prop-1-

enyl]furo[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845875-79-8P, N-[4-[4-Amino-7-[(1E)-3-(4-methylpiperazin-1-yl)prop-1-enyl]furo[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845875-81-2P 845875-82-3P 845875-83-4P 845875-84-5P 845875-85-6P 845875-86-7P 845875-87-8P 845875-88-9P, N-[4-[4-Amino-7-[(1E)-3-[(1H-benzimidazol-4-ylmethyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-89-0P, N-[4-[4-Amino-7-[(1E)-3-(3,3-dimethyl-5-oxopiperazin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-90-3P, N-[4-[4-Amino-7-[(1E)-3-(3-aminopyrrolidin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-91-4P, N-[4-[4-Amino-7-[(1E)-3-(3-aminopiperidin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-92-5P 845875-93-6P 845875-94-7P, N-[4-[4-Amino-7-[(1E)-3-[4-(2-carboxyethyl)piperazin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-95-8P 845875-96-9P, N-[4-[4-Amino-7-[(1E)-3-[(3-dimethylaminopropyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-97-0P, N-[4-[4-Amino-7-[(1E)-3-[(2-dimethylaminoethyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-98-1P, N-[4-[4-Amino-7-[(1E)-3-(3-carboxy-1,2,5,6-tetrahydropyridin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-99-2P, N-[4-[4-Amino-7-[(1E)-3-(4-carboxy-1,2,5,6-tetrahydropyridin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-00-8P, N-[4-[4-Amino-7-[(1E)-3-[3-[(diethylamino)carbonyl]piperidin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-01-9P, N-[4-[4-Amino-7-[(1E)-3-(3-hydroxymethylpiperidin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-02-0P, N-[4-[4-Amino-7-[(1E)-3-[(tetrahydrofuran-2-ylmethyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-03-1P, N-[4-[4-Amino-7-[(1E)-3-[(1-hydroxymethyl-2-hydroxyethyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-04-2P, N-[4-[4-Amino-7-[(1E)-3-[3-(aminocarbonyl)piperidin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-05-3P, N-[4-[4-Amino-7-[(1E)-3-[(2-hydroxyethyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-06-4P, N-[4-[4-Amino-7-[(1E)-3-[(3-hydroxypropyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-07-5P, N-[4-[4-Amino-7-[(1E)-3-[[(aminocarbonyl)methyl]amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-09-7P, N-[4-[4-Amino-7-[(1E)-3-[N,N-bis(carboxymethyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-10-0P, N-[4-[4-Amino-7-[(1E)-3-[(3-carboxypropyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-11-1P, N-[4-[4-Amino-7-[(1E)-3-[(2-carboxyethyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-12-2P, N-[4-[4-Amino-7-[(1E)-3-(N-carboxymethyl-N-methylamino)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 845876-13-3P, N-[4-[4-Amino-7-[(1E)-3-[(carboxymethyl)amino]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-14-4P, N-[4-[4-Amino-7-[(1E)-3-[4-(2-hydroxyethyl)piperazin-1-yl]prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845876-15-5P, N-[4-[4-Amino-7-[(1E)-3-(4-hydroxypiperidin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845876-16-6P, N-[4-[4-Amino-7-[(1E)-3-(4-methylpiperazin-1-yl)prop-1-enyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845876-17-7P, N-[4-[4-Amino-7-((E)-2-cyanoethenyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845876-19-9P 845876-21-3P, N-[4-[4-Amino-7-[3-[(1-acetylpiperidin-4-yl)amino]prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845876-22-4P, N-[4-[4-Amino-7-[3-[(tetrahydropyran-4-yl)amino]prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845876-23-5P, N-[4-[4-Amino-7-[3-[(1-methylpiperidin-4-yl)amino]prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845876-24-6P 845876-25-7P, N-[4-[4-Amino-7-[3-[(4-oxocyclohexyl)amino]prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-28-0P 845876-30-4P, N-[4-[4-Amino-7-[[3-(morpholin-4-yl)propanoyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-32-6P, N-[4-[4-Amino-7-[[3-(4-methylpiperazin-1-yl)propanoyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-34-8P, N-[4-[4-Amino-7-[[3-(4-hydroxypiperidin-1-yl)propanoyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-36-0P, N-[4-[4-Amino-7-[[3-(diethylamino)propanoyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-38-2P, N-[4-[4-Amino-7-[[3-[[3-(dimethylamino)propyl](methyl)amino]propanoyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-41-7P, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-2-(pyrrolidin-1-yl)acetamide triacetate 845876-43-9P, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-2-(morpholin-4-yl)acetamide 845876-44-0P, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-2-(4-methylpiperazin-1-yl)acetamide 845876-45-1P, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-2-[4-hydroxypiperidin-1-yl]acetamide 845876-46-2P, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-2-(diethylamino)acetamide 845876-47-3P, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-2-[methyl(3-methylaminopropyl)amino]acetamide 845876-48-4P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[(pyrrolidin-1-yl)methyl]thieno[3,2-c]pyridine-7-carboxamide 845876-49-5P, 3-[4-(Acetylamino)-3-methoxyphenyl]-4-amino-(pyrrolidin-1-ylmethyl)thieno[3,2-c]pyridine-7-carboxamide 845876-51-9P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]-N-[(morpholin-4-yl)methyl]thieno[3,2-c]pyridine-7-carboxamide 845876-53-1P, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-

yl)carbonyl]amino]phenyl]-N-[(4-methylpiperazin-1-yl)methyl]thieno[3,2-c]pyridine-7-carboxamide triacetate 845876-55-3P 845876-57-5P 845876-58-6P, 4-Amino-N-[[[3-(dimethylamino)propyl](methyl)amino]methyl]-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxamide 845876-60-0P, N-[4-(4,7-Diaminothieno[3,2-c]pyridin-3-yl)-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-62-2P, N-[4-[4-Amino-7-[(phenylsulfonyl)amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-63-3P, N-[4-[4-Amino-7-[[[[4-(dimethylamino)phenyl]amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-64-4P, N-[4-[4-Amino-7-[[[(3-chloropropyl)amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-65-5P, N-[4-[4-Amino-7-[[(4-methylpiperazin-1-yl)carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-66-6P, N-[4-[4-Amino-7-[[(diethylamino)carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-67-7P, N-[4-[4-Amino-7-[(pyrrolidin-1-ylcarbonyl)amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-68-8P, N-[4-[4-Amino-7-[(morpholin-4-ylcarbonyl)amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-69-9P, N-[4-[4-Amino-7-[[[[3-(dimethylamino)propyl](methyl)amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-70-2P, N-[4-[4-Amino-7-[[[ethyl(2-hydroxyethyl)amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-71-3P, N-[4-[4-Amino-7-[[[[2-(piperidin-1-yl)ethyl]amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-72-4P 845876-73-5P, N-[4-[4-Amino-7-[[[[2-(diethylamino)ethyl]amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-74-6P, N-[4-[4-Amino-7-[[[methoxy(methyl)amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-75-7P, N-[4-[4-Amino-7-[[[[2-(pyrrolidin-1-yl)ethyl]amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-76-8P, N-[4-[4-Amino-7-[[[[3-(pyrrolidin-1-yl)propyl]amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-77-9P, N-[4-[4-Amino-7-[[[[3-(dimethylamino)propyl]amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-78-0P, N-[4-[4-Amino-7-[[[[2-(2-hydroxyethoxy)ethyl]amino]carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-79-1P 845876-80-4P, N-[4-[4-Amino-7-[[(4-hydroxypiperidin-1-yl)carbonyl]amino]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-84-8P, 2-[4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]cyclopropanecarboxylic acid methylamide 845876-85-9P, 2-[4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]cyclopropanecarboxylic acid N-[3-(diethylamino)propyl]amide 845876-86-0P, 2-[4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]cyclopropanecarboxylic acid N-[2-(pyrrolidin-1-yl)ethyl]amide 845876-87-1P, 2-[4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]cyclopropanecarboxylic acid dimethylamide 845876-88-2P,

N-[4-[4-Amino-7-(1-methyl-4,5-dihydro-1H-pyrazol-5-yl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-92-8P, 7-[(1E)-3-(Diethylamino)prop-1-enyl]-3-(4-phenoxyphenyl)isoxazolo[4,5-c]pyridin-4-amine 845876-94-0P, N-[4-[4-Amino-7-[3-(4-hydroxypiperidin-1-yl)propyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-95-1P, N-[4-[4-Amino-7-(3-hydroxypropyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845963-25-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**inhibitor**; preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 799293-73-5P 832696-84-1P 832696-85-2P 832696-86-3P
832696-87-4P 832696-88-5P 832696-89-6P 837391-17-0P
837391-18-1P 837391-19-2P 837392-12-8P 837392-14-0P
837392-20-8P 837392-22-0P 845872-99-3P 845874-50-2P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 799293-76-8P 837391-13-6P 837391-14-7P 837391-15-8P
837391-16-9P 837391-20-5P 837391-21-6P 837391-22-7P
837391-23-8P 837391-24-9P 837391-25-0P 837391-26-1P
837391-27-2P 837391-28-3P 837391-29-4P 837391-30-7P
837391-31-8P 837391-32-9P 837391-33-0P 837391-35-2P
837391-37-4P 837391-39-6P 837391-40-9P 837391-41-0P
837391-42-1P 837391-43-2P 837391-44-3P 837391-45-4P
837391-46-5P 837391-47-6P 837391-48-7P 837391-49-8P
837391-50-1P 837391-51-2P 837391-52-3P 837391-53-4P
837391-54-5P 837391-55-6P 837391-56-7P 837391-57-8P
837391-58-9P 837391-59-0P 837391-60-3P 837391-61-4P
837391-62-5P 837391-63-6P 837391-64-7P 837391-65-8P
837391-66-9P 837391-67-0P 837391-68-1P 837391-69-2P
837391-70-5P 837391-71-6P 837391-72-7P 837391-73-8P
837391-74-9P 837391-75-0P 837391-76-1P 837391-77-2P
837391-78-3P 837391-79-4P 837391-80-7P 837391-81-8P
837391-82-9P 837391-83-0P 837391-84-1P 837391-85-2P
837391-86-3P 837391-87-4P 837391-89-6P 837391-90-9P
837391-91-0P 837391-92-1P 837391-93-2P 837391-94-3P
837391-95-4P 837391-96-5P 837391-97-6P 837391-98-7P
837391-99-8P 837392-00-4P 837392-01-5P 837392-02-6P
837392-03-7P 837392-04-8P 837392-05-9P 837392-06-0P
837392-07-1P 837392-08-2P 837392-09-3P 837392-10-6P
837392-11-7P 837392-13-9P 837392-15-1P 837392-16-2P
837392-17-3P 837392-18-4P 837392-19-5P 837392-21-9P
837392-23-1P 837392-24-2P 837392-25-3P 837392-26-4P
837392-27-5P 837392-28-6P 837392-29-7P 837392-30-0P
837392-31-1P 837392-32-2P 837392-33-3P 837392-34-4P
837392-35-5P 837392-36-6P 837392-37-7P 837392-38-8P
837392-39-9P 837392-40-2P 837392-41-3P 837392-42-4P
837392-43-5P 837392-44-6P 837392-45-7P 837392-46-8P
837392-47-9P 837392-48-0P 837392-89-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 51-45-6, 2-(1H-Imidazol-4-yl)ethylamine, reactions 56-82-6, 2,3-Dihydroxypropanal 59-48-3, 1,3-Dihydroindol-2-one 60-34-4,

Methylhydrazine 61-54-1, 2-(1H-Indol-3-yl)ethanamine 62-53-3, Aniline, reactions 62-55-5, Thiacetamide 67-64-1, 2-Propanone, reactions 74-89-5, Methylamine, reactions 78-84-2, 2-Methylpropionaldehyde 78-96-6, 1-Aminopropan-2-ol 86-84-0, 1-Isocyanatonaphthalene 90-04-0, o-Anisidine 91-22-5, Quinoline, reactions 92-54-6, 1-Phenylpiperazine 95-54-5, 1,2-Benzenediamine, reactions 96-50-4, Thiazol-2-ylamine 98-09-9, Benzenesulfonyl chloride 98-80-6, Phenylboronic acid 99-98-9, N,N-Dimethyl-1,4-benzenediamine 100-36-7, N,N-Diethyl-1,2-ethanediamine 103-71-9, Isocyanatobenzene, reactions 103-76-4, 2-(1-Piperazinyl)ethanol 104-78-9, N,N-Diethyl-1,3-propanediamine 104-79-0, [[2-(Diethylamino)ethyl](methyl)]amine 106-40-1, 4-Bromoaniline 106-96-7, Propargyl bromide 107-13-1, Acrylonitrile, reactions 107-19-7, 2-Propyn-1-ol 107-95-9, (2-Carboxyethyl)amine 108-00-9, N,N-Dimethyl-1,2-ethanediamine 108-15-6 108-18-9, Diisopropylamine 108-44-1, 3-Methylaniline, reactions 108-94-1, Cyclohexanone, reactions 109-01-3, 1-Methylpiperazine 109-55-7, N,N-Dimethyl-1,3-propanediamine 109-85-3, 2-Methoxyethylamine 109-89-7, Diethylamine, reactions 109-90-0, Isocyanatoethane 110-73-6, 2-(Ethylamino)ethanol 110-76-9, 2-Ethoxyethylamine 110-85-0, Piperazine, reactions 110-87-2 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 115-19-5, 2-Methyl-3-butyn-2-ol 121-05-1, N,N-Diisopropyl-1,2-ethanediamine 123-00-2, 3-(4-Morpholinyl)-1-propanamine 123-75-1, Pyrrolidine, reactions 124-40-3, N,N-Dimethylamine, reactions 140-88-5, Ethyl acrylate 141-32-2, Butyl acrylate 141-43-5, 2-Aminoethanol, reactions 141-86-6, 2,6-Pyridinediamine 142-25-6, N,N,N'-Trimethyl-1,2-ethanediamine 156-87-6, 3-Amino-1-propanol 177-11-7, 1,4-Dioxa-8-azaspiro[4.5]decane 298-12-4, (Oxo)acetic acid 327-78-6 329-01-1, 1-Isocyanato-3-trifluoromethylbenzene 329-89-5, 6-Aminonicotinamide 367-24-8, 4-Bromo-2-fluoroaniline 394-41-2, 3-Fluoro-4-nitrophenol 404-71-7 462-08-8, 3-Pyridinamine 498-94-2, 4-Piperidinecarboxylic acid 501-53-1, Benzyl chloroformate 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 506-59-2, Dimethylamine hydrochloride 534-03-2 536-74-3, Ethynylbenzene 540-51-2, 2-Bromoethanol 555-57-7 583-75-5 591-54-8, Pyrimidin-4-ylamine 593-51-1, Methylamine hydrochloride 598-41-4, Glycinamide 614-68-6, 1-Isocyanato-2-methylbenzene 616-30-8, 3-Amino-1,2-propanediol 616-34-2 617-89-0, (Furan-2-ylmethyl)amine 621-29-4, 1-Isocyanato-3-methylbenzene 621-30-7, 1-Isothiocyanato-3-methylbenzene 622-26-4, 2-(4-Piperidinyl)ethanol 622-58-2, 1-Isocyanato-4-methylbenzene 627-19-0, 1-Pentyne 627-41-8, 3-Methoxy-1-propyne 630-19-3, 2,2-Dimethyl-propionaldehyde 638-29-9, Pentanoyl chloride 644-42-8 656-65-5, 4-Bromo-3-fluoroaniline 683-57-8, 2-Bromoacetamide 688-49-3 693-11-8, 4-Dimethylaminobutyric acid 765-30-0, Cyclopropylamine 765-38-8, 2-Methylpyrrolidine 826-36-8 870-24-6, 2-Chloroethylamine hydrochloride 877-96-3 924-73-2, Ethyl β-alaninate 927-74-2, 3-Butyn-1-ol 929-06-6, 2-(2-Aminoethoxy)ethanol 1008-91-9, 1-(Pyridin-4-yl)piperazine 1013-88-3, Benzophenone imine 1072-67-9, (5-Methylisoxazol-3-yl)amine 1072-72-6 1074-82-4, Potassium phthalimide 1075-34-9 1118-68-9, Dimethylaminoacetic acid 1122-72-1, 6-Methyl-2-pyridinecarboxaldehyde 1195-45-5 1445-73-4 1548-13-6 1591-97-5 1632-83-3, 1-Methyl-1H-benzimidazole 1663-39-4, tert-Butyl acrylate 1664-39-7 1668-10-6, Glycinamide hydrochloride 1679-18-1, 4-Chlorophenylboronic acid 1692-15-5, (4-Pyridyl)boronic acid 1692-25-7, (3-Pyridyl)boronic acid 1711-06-4, 3-Methylbenzoyl chloride 1750-42-1,

Isoxazol-3-ylamine 1761-61-1, 5-Bromo-2-hydroxybenzaldehyde 1765-93-1, 4-Fluorophenylboronic acid 1774-47-6, Trimethylsulfoxonium iodide 1804-94-0, 2-(Pyrrolidin-1-yl)acetamide 1820-80-0, 1H-Pyrazol-3-amine 1899-93-0, 3-Methylbenzenesulfonyl chloride 1904-31-0, (1-Methyl-1H-pyrazol-3-yl)amine 1945-84-2, 2-Ethynylpyridine 1985-12-2, 1-Bromo-4-isothiocyanatobenzene 2038-03-1, 2-(4-Morpholinyl)ethanamine 2048-57-9, 2-Isocyanatothiophene 2243-54-1, 2-Isocyanatonaphthalene 2285-12-3, 1-Isocyanato-2-(trifluoromethyl)benzene 2450-71-7, Propargylamine 2510-22-7, 4-Ethynylpyridine 2510-23-8, 3-Ethynylpyridine 2680-03-7, N,N-Dimethylacrylamide 2706-56-1, 2-(2-Pyridinyl)ethanamine 2909-38-8 2978-58-7, 1,1-Dimethyl-2-propynylamine 3034-50-2, 1H-Imidazole-4-carboxaldehyde 3173-53-3, Isocyanatocyclohexane 3197-06-6 3234-64-8, 1,1-Diethylpropargylamine 3320-87-4 3367-95-1, N,N-Diethylnipecotamide 3528-58-3, (2-Ethyl-2H-pyrazol-3-yl)amine 3529-08-6, 1-Piperidinepropanamine 3529-10-0, N,N-Dimethyl-1,4-butanediamine 3612-18-8 3644-18-6 3685-25-4, trans-4-Carboxycyclohexylamine 3731-51-9, 1-(2-Pyridinyl)methanamine 3731-52-0, 1-(3-Pyridinyl)methanamine 3731-53-1, 1-(4-Pyridinyl)methanamine 4079-68-9 4138-26-5, Nipecotamide 4244-84-2 4318-37-0, 1-Methyl-1,4-diazepane 4318-42-7, 1-Isopropylpiperazine 4543-96-8, N,N,N'-Trimethyl-1,3-propanediamine 4572-03-6, 3-(4-Methyl-1-piperazinyl)-1-propanamine 4606-65-9, 3-Piperidinemethanol 4637-24-5 4746-97-8, 1,4-Dioxaspiro[4.5]decan-8-one 4747-71-1, Isocyanatocyclopentane 4753-75-7 4795-29-3, [(Tetrahydrofuran-2-yl)methyl]amine 4892-89-1, 4-[2-(1-Piperazinyl)ethyl]morpholine 4897-50-1, 4-(Piperidino)piperidine 4923-87-9, 5-Bromobenzo[b]thiophene 5036-48-6, 3-(1H-Imidazol-1-yl)-1-propanamine 5049-61-6, Pyrazin-2-ylamine 5122-94-1, 1,1'-Biphenyl-4-ylboronic acid 5221-62-5 5308-25-8, 1-Ethylpiperazine 5332-25-2, 6-Bromoquinoline 5355-68-0, 1-Isopropyl-4-piperidinone 5382-16-1, 4-Piperidinol 5390-04-5, 4-Pentyn-1-ol 5467-74-3, 4-Bromophenylboronic acid 5625-67-2, 2-Piperazinone 5625-98-9, 2-(Morpholin-4-yl)acetamide 5651-88-7 5680-79-5 5699-41-2, (4-(Acetylamino)butyl)amine 5720-05-8, 4-Methylphenylboronic acid 5720-07-0, 4-Methoxyphenylboronic acid 5799-76-8, 4-Prop-2-ynylmorpholine 5815-70-3, 1-Piperazinepropanamide 5959-36-4, Ethyl 4-aminobutanoate 6027-91-4 6089-09-4, 4-Pentynoic acid 6097-08-1 6165-68-0, (2-Thienyl)boronic acid 6165-69-1, (3-Thienyl)boronic acid 6238-14-8, 1-Azabicyclo[2.2.2]octan-3-amine 6241-30-1 6281-42-1, 1-(2-Aminoethyl)-2-imidazolidinone 6290-05-7, Diethyl iminodiacetate 6300-04-5, 3-Dimethylaminopropanoic acid 6320-96-3, 3-Bromopropionamide 6323-79-1 6456-74-2, tert-Butyl glycinate 6482-24-2, 1-Bromo-2-methoxyethane 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 6783-05-7, (E)-2-Phenylethenylboronic acid 6789-94-2, (1-Ethylpiperidin-3-yl)amine 6850-65-3, 4-Aminocyclohexanol 6937-16-2, Ethyl 4-aminobutyrate hydrochloride 7154-73-6, 2-(1-Pyrrolidinyl)ethanamine 7209-11-2 7223-38-3, N,N-Dimethyl-N-(2-propynyl)amine 7223-50-9, N-Propargylphthalimide 7409-48-5, 2-Diethylaminoacetamide 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidinone 7693-46-1, 4-Nitrophenyl chloroformate 10075-52-2, 5-Bromo-1-methyl-1H-indole 10160-87-9, 3,3-Diethoxy-1-propyne 10365-98-7, 3-Methoxyphenylboronic acid 10400-19-8, Nicotinoyl chloride 13010-19-0, 3-Chloropropyl isocyanate 13035-19-3, 4-Piperidinamine 13220-27-4, (1-Methylpyrrolidin-3-yl)amine

13258-63-4, 2-(4-Pyridinyl)ethanamine 13291-18-4, Isopropenylmagnesium bromide 13325-10-5, 4-Aminobutan-1-ol 13331-23-2, (2-Furyl)boronic acid 13360-57-1, Dimethylsulfamoyl chloride 13484-40-7, 1-(2-Methoxyethyl)piperazine 13552-21-1, 1-Aminobutan-2-ol 13610-02-1, (2-Propynyloxy)benzene 13737-05-8, Pyridyl-2-trimethylstannane
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 13889-98-0, 1-Acetylpiperazine 13910-79-7, (m-Methylphenyl)acetyl chloride 14254-57-0, Isonicotinoyl chloride 15231-41-1, tert-Butyl β-alaninate 15451-14-6, 3-Dimethylamino-2,2-dimethylpropionaldehyde 16136-58-6, 1-Methyl-1H-2-indolecarboxylic acid 16315-59-6, 4-(Dimethylamino)phenyl isocyanate 16413-26-6 16520-62-0 16617-46-2, 3-Amino-1H-pyrazole-4-carbonitrile 16629-19-9, 2-Thiophenesulfonyl chloride 16744-98-2 17386-10-6, [4-[(Piperidin-1-yl)methyl]thiazol-2-yl]amine 17933-03-8, 3-Methylphenylboronic acid 18233-70-0 18369-83-0, Methyl chlorothiolformate 19248-13-6 19382-49-1, 3-(2-Aminoethyl)thiazolidine-2,4-dione hydrochloride 19596-07-7, 4-Pentynenitrile 20173-24-4, [2-(Pyridin-3-yl)ethyl]amine 20244-61-5, 2,4,4,6-Tetrabromo-2,5-cyclohexadienone 20980-22-7, 2-(Piperazin-1-yl)pyrimidine 21402-26-6, 4-Bromo-3-chloroaniline 21709-40-0, 2-Amino-4-methylthiazole-5-carboxylic acid dimethylamide 22190-33-6, 5-Bromo-2,3-dihydro-1H-indole 22195-47-7, [(2,2-Dimethyl-[1,3]dioxolan-4-yl)methyl]amine 22483-09-6 22763-65-1 22764-55-2 22795-97-7 22795-99-9 23133-37-1 23138-50-3 23138-55-8 23138-64-9 23145-07-5, 5-Bromobenzofuran 23159-07-1, 3-(1-Pyrrolidinyl)-1-propanamine 23995-88-2, 1-(1-Methyl-4-piperidinyl)piperazine 24123-14-6, N-(2-Aminoethyl)glycine 24438-88-8, 3-(Pyrrolidin-1-yl)propionamide 24935-08-8, [2-(2-Oxopyrrolidin-1-yl)ethyl]amine 25015-63-8, Pinacolborane 25560-00-3, [3-(2-Methylpiperidin-1-yl)propyl]amine 26116-12-1, (1-Ethyl-2-pyrrolidinyl)methylamine 26371-07-3, 3-(Piperidin-1-yl)propionic acid 26734-09-8, 3-Amino-2,2-dimethyl-1-propanol 27245-31-4, 3-(Piperazin-1-yl)propionic acid 27329-70-0, 5-Formyl-2-furylboronic acid 27339-38-4 27431-62-5 27578-60-5, 2-(1-Piperidinyl)ethanamine 27757-85-3, (2-Thienylmethyl)amine 28395-76-8 28479-22-3 28611-39-4, 4-(N,N-Dimethylamino)phenylboronic acid 28739-42-6 29943-42-8, Tetrahydro-4H-pyran-4-one 29976-53-2, Ethyl 4-oxo-1-piperidinecarboxylate 30389-18-5, 1-Ethynylcyclohexanamine 30418-59-8, 3-Aminophenylboronic acid 30433-91-1, [2-(Thiophen-2-yl)ethyl]amine 31270-80-1, 4-Chlorofuro[3,2-c]pyridine 32161-06-1, 1-Acetyl-4-piperidinone 32316-92-0, 2-Naphthaleneboronic acid 34064-86-3, 1-Piperazinepropanenitrile 34420-17-2 34803-68-4, 2-(1-Piperazinyl)pyrazine 34987-15-0 35161-71-8, N-Methyl-N-(2-propynyl)amine 36476-78-5, 3-Azetidinecarboxylic acid 36489-03-9, 2-Ethylsulfanylethylamine 36520-39-5 39137-36-5 39546-32-2, 4-Piperidinecarboxamide 39827-11-7, 1-Benzothiophene-2-carbonyl chloride 40172-95-0, 1-(2-Furoyl)piperazine 40499-83-0, 3-Pyrrolidinol 41221-47-0, Methyl 3-isocyanatobenzoate 41458-65-5, 2-Amino-4,6-dimethylphenol 41717-28-6, 2-Benzofurancarbonyl chloride 50529-33-4 50541-93-0, 1-Benzyl-4-piperidinamine 51067-38-0, 4-Phenoxyphenylboronic acid 51163-27-0 51387-90-7 52415-29-9, 6-Bromo-1H-indole 52605-49-9, Sarcosine ethyl ester hydrochloride 53266-94-7, (2-Aminothiazol-4-yl)acetic acid ethyl ester 53369-71-4, N,N,2,2-Tetramethyl-1,3-propanediamine 54132-75-1, 1-Isocyanato-3,5-dimethylbenzene 54263-82-0,

3-Dimethylaminobenzoyl chloride 55552-70-0, (3-Furyl)boronic acid 57260-71-6, tert-Butyl 1-piperazinecarboxylate 57260-73-8, tert-Butyl (2-aminoethyl)carbamate 58881-45-1, 1H-Indole-2-carbonyl chloride 59016-93-2, 4-(Hydroxymethyl)phenylboronic acid 60853-81-8 61676-62-8, 2-Isopropoxy-4,4,5,5-tetramethyl-[1,3,2]dioxaborolane 62348-13-4, 5-Isoxazolecarbonyl chloride 62366-47-6, 1-Methyl-1H-benzo[d]imidazole-2-carbonyl chloride 63126-47-6, (S)-(+)-2-(Methoxymethyl)pyrrolidine 63503-60-6, 3-Chlorophenylboronic acid 63837-11-6, 5-Bromo-2-methylbenzothiazole 66416-72-6, 4-Bromo-2-iodophenylamine 68547-97-7 68832-13-3, D-Prolinol 69225-59-8, 3,3-Dimethyl-1,5-dioxaspiro[5.5]undecan-9-one 69922-27-6, 1-Fluoro-2-isocyanato-4-(trifluoromethyl)benzene 69922-28-7, 5-Isocyanato-1,3-benzodioxole 73183-34-3, 4,4,4',4',5,5,5',5'-Octamethyl-2,2'-bi-1,3,2-dioxaborolane 73579-08-5 73874-95-0, tert-Butyl (4-piperidinyl)carbamate 75178-96-0, tert-Butyl N-(3-aminopropyl)carbamate 76536-95-3, 3-Isocyanatothiophene 78551-34-5, 6,6-Dimethylpiperazin-2-one 78887-39-5, 3-Acetamidophenylboronic acid 79099-07-3 79286-79-6, Pyrrolidin-3-ylamine 81731-43-3, 2-Aminoethyl isopropyl ether 83594-83-6, 3,5-Difluoro-1-isocyanatobenzene 83732-75-6 83808-21-3, 2-(4-Methylpiperazin-1-yl)acetamide 85107-53-5, [2-(N,N-Dimethylaminomethyl)phenyl]boronic acid 87120-72-7, tert-Butyl 4-amino-1-piperidinecarboxylate 87199-15-3, 3-Hydroxymethylphenylboronic acid 87199-17-5, 4-Formylphenylboronic acid 87199-18-6, 3-Hydroxyphenylboronic acid 87873-72-1, 1-Isocyanato-3-phenoxybenzene 89415-43-0, 4-Aminophenylboronic acid 92136-39-5, tert-Butyl (2-propynyl)carbamate 93501-84-9, N-Prop-2-ynylmethanesulfonamide 94839-07-3, 1,3-Benzodioxol-5-ylboronic acid 95538-31-1 98437-23-1 98437-24-2, (Benzo[b]furan-2-yl)boronic acid 98546-51-1, 4-(Methylthio)phenylboronic acid 99724-19-3, tert-Butyl pyrrolidin-3-ylcarbamate 99768-12-4, 4-Methoxycarbonylphenylboronic acid 101251-09-6, 4-Acetamidophenylboronic acid 102561-42-2 103686-16-4 108122-24-3 109299-78-7, (5-Pyrimidinyl)boronic acid 116833-24-0, 2-(4-Hydroxypiperidin-1-yl)acetamide 117625-90-8 120570-05-0, (S)-(1-Azabicyclo[2.2.2]oct-3-yl)amine 120912-37-0, 5-Isocyanatoindane 121177-82-0 121492-06-6, N-(2-Aminoethyl)-N-methylcarbamic acid tert-butyl ester 122775-35-3, (3,4-Dimethoxyphenyl)boronic acid 123088-59-5, 4-Aminocarbonylphenylboronic acid 123536-15-2 126747-14-6, 4-Cyanophenylboronic acid 128796-39-4, 4-(Trifluoromethyl)phenylboronic acid 130290-79-8, [(Tetrahydropyran-4-yl)methyl]amine 131922-07-1, [(1,4-Dimethylpiperazin-2-yl)methyl]amine 132664-85-8 132883-44-4, (3S)-(-)-3-(Dimethylamino)pyrrolidine 132958-72-6, (3R)-(+)-3-(Dimethylamino)pyrrolidine 135632-53-0, tert-Butyl (4-piperidinylmethyl)carbamate 135884-31-0, [1-(tert-Butoxycarbonyl)-1H-pyrrol-2-yl]boronic acid 136466-94-9, (2,6-Difluoro-3-pyridinyl)boronic acid 139057-86-6 139111-44-7 139301-27-2, (4-Trifluoromethoxyphenyl)boronic acid 144104-59-6, 1H-Indol-5-ylboronic acid 144222-22-0, tert-Butyl 4-(aminomethyl)-1-piperidinecarboxylate 144432-85-9, 3-Chloro-4-fluorophenylboronic acid 146093-46-1, tert-Butyl 4-(2-aminoethyl)-1-piperidinecarboxylate 146631-00-7, 4-(Benzyloxy)phenylboronic acid 147081-44-5 147123-47-5, 3-Amino-2-thiophenecarboxamide 147621-18-9 148355-75-3, 3-(Methylsulfonylamino)phenylboronic acid 149104-88-1, 4-Methylsulfonylphenylboronic acid 149104-90-5, 4-Acetylphenylboronic acid 150255-96-2, 3-Cyanophenylboronic

acid 150349-36-3, tert-Butyl N-(3-aminopropyl)-N-(methyl)carbamate 157991-84-9 162167-97-7, tert-Butyl 3-(aminomethyl)-1-piperidinecarboxylate 163105-89-3, 6-Methoxy-3-pyridinylboronic acid 170078-84-9 170353-24-9 171364-82-2, 4-(4,4,5,5-Tetramethyl-[1,3,2]dioxaborolan-2-yl)benzonitrile 172603-05-3, tert-Butyl piperidin-3-ylcarbamate 172913-97-2, (S)-5-Aminopiperidin-2-one 177906-48-8, N-Boc-trans-1,4-cyclohexanediamine 177911-87-4, [(1-(tert-Butoxycarbonyl)pyrrolidin-2-yl)methyl]amine 178752-79-9, [3-(Dimethylamino)phenyl]boronic acid 182163-96-8, (3,4,5-Trimethoxyphenyl)boronic acid 184637-48-7, tert-Butyl 3-amino-1-piperidinecarboxylate 186550-13-0, tert-Butyl 3-amino-1-pyrrolidinecarboxylate 188111-79-7, (R)-3-Amino-1-Boc-Piperidine 190774-50-6, 1-Fluoro-2-isocyanato-4-methylbenzene 192182-56-2, (4-Isoquinolinyl)boronic acid 193269-78-2, 3-Amino-1-Boc-azetidine 194350-88-4, 1-Methylpiperazin-2-one trifluoroacetate 195314-59-1, tert-Butyl (4-aminocyclohexyl)carbamate 199174-29-3 199175-10-5, tert-Butyl (3S)-3-(aminomethyl)-1-pyrrolidinecarboxylate 203941-94-0 204841-19-0, 3-Acetylphenylboronic acid 207981-46-2, 2-Fluoro-5-trifluoromethylbenzoyl chloride 210907-84-9, 3-(4,4,5,5-Tetramethyl-1,3,2-dioxaborolan-2-yl)aniline 213318-44-6 214360-60-8, N-[4-(4,4,5,5-Tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]acetamide 214360-73-3, 4-(4,4,5,5-Tetramethyl-1,3,2-dioxaborolan-2-yl)aniline 216144-91-1, [3-(2-Carboxyvinyl)phenyl]boronic acid 220210-56-0, 3-tert-Butoxycarbonylphenylboronic acid 224309-80-2 239482-98-5 247570-24-7 269410-08-4, 4-(4,4,5,5-Tetramethyl-[1,3,2]dioxaborolan-2-yl)-1H-pyrazole 270912-72-6 346585-03-3 351003-65-1 351422-73-6, 3-Aminocarbonylphenylboronic acid 352525-94-1, (3-Aminomethylphenyl)boronic acid hydrochloride 352530-24-6, 4-Ethylsulfonylphenylboronic acid 370069-31-1, [(1-(tert-Butoxycarbonyl)piperidin-2-yl)methyl]amine 373384-18-0, 3-Methylsulfonylphenylboronic acid 380430-57-9, 4-(Methylsulfonylamino)phenylboronic acid 397244-99-4 422284-32-0 422545-96-8 436852-18-5, 4-[3-(1-Piperazinyl)propyl]morpholine 458532-97-3, (3-Fluoropyridin-4-yl)boronic acid 461046-73-1, 1-[2-(2-Thienyl)ethyl]piperazine 461697-30-3, N-[2-Methoxy-4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]-1-methyl-1H-indole-2-carboxamide 461699-81-0, 2-Methoxy-4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)aniline 521273-76-7 590418-31-8 608534-37-8 625471-18-3, (S)-3-Amino-1-Boc-Piperidine 628692-15-9, 2-Methoxy-5-pyrimidinylboronic acid 643083-59-4, [(Prop-2-ynyloxy)methyl]cyclopropane 680584-61-6 681847-93-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 693774-55-9, (2,6-Dimethyl-3-pyridinyl)boronic acid 796967-62-9 796969-09-0, 2-[4-(4,4,5,5-Tetramethyl-[1,3,2]dioxaborolan-2-yl)phenyl]-N-(m-methylphenyl)acetamide 797755-07-8, [4-(4,4,5,5-Tetramethyl-[1,3,2]dioxaborolan-2-yl)phenyl]acetic acid 799293-91-7, (3-Bromo-7-iodothieno[3,2-c]pyridin-4-yl)amine 832694-74-3 832694-87-8 832695-88-2 832697-40-2 832698-01-8 832698-69-8 832698-90-5, N-[4-[4-Amino-7-((1E)-3-hydroxyprop-1-enyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 832698-99-4 832699-10-2 837392-86-6 837392-87-7 837392-88-8 845870-47-5, 3-Ethylsulfonylphenylboronic acid 845870-55-5, Methyl[4-(4,4,5,5-tetramethyl-[1,3,2]dioxaborolan-2-yl)phenyl]amine 845872-30-2, 2-Methyl-5-(4,4,5,5-tetramethyl-[1,3,2]dioxaborolan-2-yl)benzoxazole 845872-49-3,

Benzothiophen-5-ylboronic acid 845872-91-5, 4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridine-7-carboxylic acid 845873-06-5 845873-09-8 845873-31-6, 2-[4-Amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]-1H-pyrrole-1-carboxylic acid tert-butyl ester 845873-35-0, 3-(4,4,5,5-Tetramethyl-1,3,2-dioxaborolan-2-yl)thiophene-2-carboxaldehyde 845873-40-7, N-[4-[4-Amino-7-(5-formylthien-2-yl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-42-9, N-[4-[4-Amino-7-(5-formyl-4-methylthien-2-yl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-43-0, N-[4-[4-Amino-7-(3-formylphenyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845873-76-9, [3-(2-(Dimethylaminoethyl)amino)-3-oxopropyl]amine 845874-51-3, 2-([1,2,4]Triazol-1-yl)ethylammonium bromide 845875-50-5, N-[4-[4-Amino-7-[3-(diethylamino)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-70-9, N-[4-[4-Amino-7-((1Z)-3-oxoprop-1-enyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845875-72-1 845876-08-6, N-[4-[4-Amino-7-((1E)-3-oxoprop-1-enyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845876-18-8, N-[2-Methoxy-5-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]-1-methyl-1H-benzo[d]imidazole-2-carboxamide 845876-20-2, N-[4-[4-Amino-7-(3-aminoprop-1-ynyl)thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-benzimidazole-2-carboxamide 845876-26-8, N-[4-[4-Amino-7-[3-(1,4-dioxaspiro[4.5]decan-8-ylamino)prop-1-ynyl]thieno[3,2-c]pyridin-3-yl]-2-methoxyphenyl]-1-methyl-1H-indole-2-carboxamide 845876-29-1, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-3-(pyrrolidin-1-yl)propanamide 845876-31-5, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-3-(morpholin-4-yl)propanamide 845876-33-7, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-3-(4-methylpiperazin-1-yl)propanamide 845876-35-9, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-3-(4-hydroxypiperidin-1-yl)propionamide 845876-37-1, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-3-diethylaminopropionamide 845876-39-3, N-[4-Amino-3-(4-amino-3-methoxyphenyl)thieno[3,2-c]pyridin-7-yl]-3-[(3-dimethylaminopropyl)(methyl)amino]propionamide 845876-42-8, 2-[Methyl(3-methylaminopropyl)amino]acetamide 845876-82-6, Ethyl (2E)-3-[4-amino-3-[3-methoxy-4-[[(1-methyl-1H-indol-2-yl)carbonyl]amino]phenyl]thieno[3,2-c]pyridin-7-yl]-2-propenoate 845876-90-6, Ethyl (Z)-5-[[(benzyloxy)carbonyl]amino]-3-(tetrahydro-1H-pyrrol-1-yl)-2-pentenoate

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thienopyridines and furopyridines as protein kinase **inhibitors**)

IT 5304-21-2P 7223-42-9P 20572-01-4P 20870-78-4P 29064-82-2P, 3-Bromo-4-chlorothieno[3,2-c]pyridine 40365-61-5P, 2-(But-3-ynyloxy)tetrahydro-2H-pyran 45813-02-3P 59557-91-4P, 4-Bromo-2-methoxyaniline 78888-18-3P, tert-Butyl (allyl)carbamate 113486-06-9P 118618-61-4P, 1-Methyl-1H-indole-2-carbonyl chloride 124045-51-8P 130495-08-8P 153737-25-8P 183173-44-6P 220939-72-0P 256935-94-1P 256935-96-3P 261732-38-1P 262433-01-2P 262433-02-3P 312317-33-2P 316141-29-4P 406463-06-7P 501945-71-7P 519054-55-8P 765949-02-8P, N-(3-Methylphenyl)-N'-[4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]urea 791614-90-9P 799293-74-6P 799293-83-7P 799293-85-9P

832693-90-0P 832693-97-7P 832694-01-6P 832694-03-8P
832694-04-9P 832694-09-4P 832694-16-3P 832694-17-4P
832694-23-2P 832694-72-1P 832694-76-5P 832694-79-8P
832694-83-4P 832694-91-4P 832694-93-6P 832694-97-0P
832694-98-1P **832694-99-2P** 832695-04-2P 832695-05-3P
832695-06-4P 832695-08-6P 832695-09-7P 832695-49-5P
832695-60-0P 832695-69-9P 832695-73-5P 832695-76-8P
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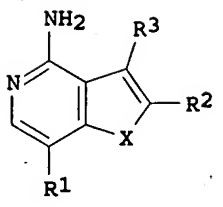
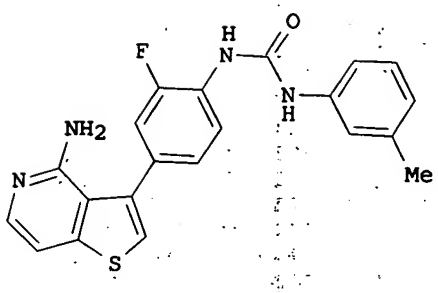
837392-71-9P 837392-72-0P 837392-73-1P 837392-75-3P
837392-76-4P 837392-77-5P 837392-78-6P 837392-79-7P
837392-80-0P 837392-81-1P 837392-82-2P 837392-83-3P
837392-84-4P 837392-85-5P 845871-04-7P, Methyl
4-amino-3-(4-aminophenyl)thieno[3,2-c]pyridine-7-carboxylate
845871-12-7P, 3-(3-Aminophenyl)thieno[3,2-c]pyridin-4-amine
845871-78-5P, [3-(4-Amino-3-bromothieno[3,2-c]pyridin-7-
yl)phenyl]methanol 845871-79-6P, 3-Bromo-7-[3-
(chloromethyl)phenyl]thieno[3,2-c]pyridin-4-amine 845871-80-9P,
3-Bromo-7-[3-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-
c]pyridin-4-amine 845871-95-6P, 3-(4-Aminophenyl)-7-(2-methyl-
1,3-benzothiazol-5-yl)thieno[3,2-c]pyridin-4-amine 845872-04-0P,
3-(4-Aminophenyl)-7-[(pyridin-4-yl)ethynyl]thieno[3,2-c]pyridin-4-
amine 845872-10-8P, 3-(4-Aminophenyl)-2-methylthieno[3,2-
c]pyridin-4-amine 845872-17-5P, N-[4-(4-Amino-3-bromothieno[3,2-
c]pyridin-7-yl)phenyl]acetamide 845872-23-3P,
N-[4-(4-Amino-3-bromothieno[3,2-c]pyridin-7-
yl)phenyl]methanesulfonamide 845872-66-4P, 7-[2-(1H-Benzimidazol-
2-yl)vinyl]-3-bromothieno[3,2-c]pyridin-4-amine 845873-11-2P,
4,4,5,5-Tetramethyl-2-[(E)-4-(1-propoxypropoxy)but-1-enyl]-
[1,3,2]dioxaborolane 845876-89-3P, 3-(4-
Phenoxyphenyl)isoxazolo[4,5-c]pyridin-4(5H)-one 845876-93-9P,
7-Iodo-3-(4-phenoxyphenyl)isoxazolo[4,5-c]pyridin-4-amine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation of thienopyridines and furopyridines as protein kinase
inhibitors)

L138 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2005:99165 Document No. 142:198046 Preparation of thienopyridines as
protein kinase **inhibitors**. Betschmann, Patrick;
Burchat, Andrew F.; Calderwood, David J.; Curtin, Michael L.;
Davidsen, Steven K.; Davis, Heather M.; Frey, Robin R.; Heyman,
Howard R.; Hirst, Gavin C.; Hrnciar, Peter; Michaelides, Michael
R.; Muckey, Melanie A.; Rafferty, Paul; Wada, Carol K. (USA).
U.S. Pat. Appl. Publ. US 2005026944 A1 20050203, 106 pp.,
Cont.-in-part of U.S. Ser. No. 626,092. (English). CODEN:
USXXCO. APPLICATION: US 2004-838132 20040503. PRIORITY: US
2003-2003/626092 20030724.
GI



I



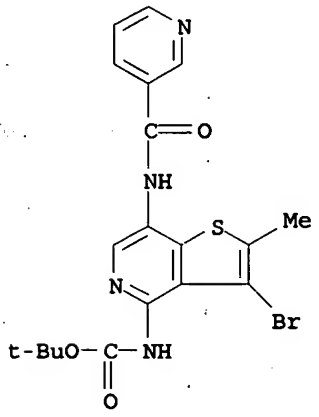
II

AB Title compds. I [wherein X = O, S; R1 = H, alkenyl, alkoxyalkynyl, aryl, etc.; R2 = H or alkyl; R3 = halo, (un)substituted (hetero)aryl or heterocyclyl, or therapeutically acceptable salts thereof] were prepared as protein kinase **inhibitors.** For example, urea II was synthesized via addition reaction of the corresponding amine (preparation given) with 1-isocyanato-3-methylbenzene. Representative compds. I **inhibited** KDR and Lck at IC50 values of 0.002 μM to 50 μM and 0.06 μM to 50 μM, resp. Therefore, I and their pharmaceutical compns. are useful for the treatment of such as cancer, ocular and cardiovascular diseases.

IT **832694-99-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of thienopyridines as protein kinase **inhibitors**)

RN 832694-99-2 HCAPLUS

CN Carbamic acid, [3-bromo-2-methyl-7-[(3-pyridinylcarbonyl)amino]thieno[3,2-c]pyridin-4-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IC ICM C07D491-02
ICS C07D498-02; A61K031-4743; A61K031-4741

INCL 514301000; 514302000; 546114000; 546115000

CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63

ST thienopyridine prepn protein kinase KDR Lck **inhibitor**; cancer ocular cardiovascular disease treatment thienopyridine prepn

IT Inflammation
(Crohn's disease, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Intestine, disease
(Crohn's, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Bone, disease
(Paget's, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(c-kit, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)
IT Lung, disease
(chronic obstructive, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Inflammation
(chronic, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Anti-inflammatory agents
(chronic; preparation of thienopyridine as protein kinase **inhibitors**)
IT Uterus, disease
(endometriosis, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fyn, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gene lyn, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)
IT Inflammation
Kidney, disease
(glomerulonephritis, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Capillary vessel, disease
(hereditary hemorrhagic telangiectasia, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Infection
(herpes zoster, treatment infection from; preparation of thienopyridines as protein kinase **inhibitors**)
IT Ovary, disease
(hyperstimulation syndrome, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Blood, disease
(hyperviscosity syndrome, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Intestine, disease
(inflammatory, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Menstrual disorder
(menorrhagia, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Skin, disease
(pemphigoid, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Kidney, disease
(polycystic, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Nerve, disease

(polyneuropathy, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Antiarthritics
Antidiabetic agents
Antirheumatic agents
Antitumor agents
Cardiovascular agents
Immunosuppressants
(preparation of thienopyridine as protein kinase **inhibitors**)
IT Anti-ischemic agents
Antiasthmatics
Antiviral agents
Diuretics
Human
Protozoacides
(preparation of thienopyridines as protein kinase **inhibitors**)
IT Brain, disease
(stroke, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Arthritis
Synovial membrane, disease
(synovitis, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Lupus erythematosus
(systemic, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Inflammation
Thyroid gland, disease
(thyroiditis, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Infection
(toxoplasmosis, treatment infection from; preparation of thienopyridines as protein kinase **inhibitors**)
IT Injury
(trauma, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Human herpesvirus
Human immunodeficiency virus
Parapoxvirus
Protozoa
(treatment infection from; preparation of thienopyridines as protein kinase **inhibitors**)
IT Cardiovascular system, disease
Cirrhosis
Diabetes mellitus
Eye, disease
Fibrosis
Lyme disease
Multiple sclerosis
Neoplasm
Osteoarthritis
Psoriasis
Rheumatoid arthritis
Sarcoidosis
Sepsis
Sickle cell anemia
Transplant rejection
(treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Asthma

Burn
Edema
Hypoxia
Ischemia
Preeclampsia
(treatment of; preparation of thienopyridines as protein kinase **inhibitors**)

IT Vascular endothelial growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type VEGFR-2, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT Infection
(viral; preparation of thienopyridines as protein kinase **inhibitors**)

IT Nervous system, neoplasm
(von Hippel-Lindau disease, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)

IT Platelet-derived growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(α, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT Platelet-derived growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(β, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT 108891-60-7, CSF-1 receptor **tyrosine kinase**
114051-78-4 138359-29-2, Ckit kinase 141349-91-9, Yes kinase
141350-03-0, FLT-1 kinase 144638-77-7, Protein kinase, FLT-4
144697-17-6 144941-32-2 144941-35-5, Blk **tyrosine kinase** 145539-86-2, Hck Kinase 147230-71-5, FLT3 receptor **tyrosine kinase** 148047-29-4, Tie-2 kinase 150316-07-7, Cot kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT 832694-06-1P 832694-07-2P 832694-11-8P 832694-12-9P
832694-19-6P 832694-20-9P 832695-07-5P 832695-10-0P
832695-31-5P 832695-36-0P 832695-40-6P 832695-42-8P
832695-46-2P 832695-48-4P 832696-15-8P 832696-69-2P
832696-71-6P 832696-95-4P 832697-99-1P 832698-00-7P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(kinase **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT 796967-48-1P, N-[4-(4,4,5,5-Tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 832693-89-7P
832693-92-2P 832693-93-3P 832693-94-4P 832693-95-5P
832693-96-6P 832693-98-8P 832693-99-9P 832694-00-5P
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832696-97-6P 832696-98-7P 832696-99-8P 832697-00-4P
832697-01-5P 832697-02-6P 832697-03-7P 832697-04-8P
832697-06-0P 832697-07-1P 832697-08-2P 832697-09-3P
832697-10-6P 832697-11-7P 832697-12-8P 832697-13-9P
832697-14-0P 832697-17-3P 832697-18-4P 832697-19-5P
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832697-24-2P 832697-25-3P 832697-26-4P 832697-27-5P
832697-28-6P 832697-29-7P 832697-30-0P 832697-31-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation);
THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)
(kinase **inhibitor**; preparation of thienopyridines as
protein kinase **inhibitors**)

IT 832697-32-2P 832697-33-3P 832697-34-4P 832697-35-5P
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832699-51-1P 832699-52-2P 832699-53-3P 832699-55-5P
832699-57-7P 832699-59-9P 832699-60-2P 832699-61-3P
832699-62-4P 832699-63-5P 832699-64-6P 832699-65-7P
832699-66-8P 832699-67-9P 833446-48-3P 833446-50-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(kinase **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT 837391-17-0P 837391-18-1P 837391-19-2P 837392-12-8P
837392-14-0P 837392-20-8P 837392-22-0P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of thienopyridines as protein kinase **inhibitors**)

IT 799293-76-8P 837391-13-6P 837391-14-7P 837391-15-8P
837391-16-9P 837391-20-5P 837391-21-6P 837391-22-7P
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837392-47-9P 837392-48-0P 837392-89-9P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of thienopyridines as protein kinase **inhibitors**
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IT 56-82-6, 2,3-Dihydroxypropanal 59-48-3, 1,3-Dihydroindol-2-one 61-54-1, 2-(1H-Indol-3-yl)ethanamine 62-53-3, Aniline, reactions 62-55-5, Thiacetamide 90-04-0, o-Anisidine 92-54-6, 1-Phenylpiperazine 98-09-9, Benzenesulfonyl chloride 98-80-6, Phenylboronic acid 99-98-9, N,N-Dimethyl-1,4-benzenediamine 100-36-7, N,N-Diethyl-1,2-ethanediamine 103-71-9, Isocyanatobenzene, reactions 103-76-4, 2-(1-Piperazinyl)ethanol 104-78-9, N,N-Diethyl-1,3-propanediamine 106-40-1, 4-Bromoaniline 106-96-7, Propargyl bromide 107-19-7, 2-Propyn-1-ol 108-00-9, N,N-Dimethyl-1,2-ethanediamine 108-15-6 109-01-3, 1-Methylpiperazine 109-55-7, N,N-Dimethyl-1,3-propanediamine 109-85-3, 2-Methoxyethylamine 109-89-7, Diethylamine, reactions 109-90-0, Isocyanatoethane 110-73-6, 2-(Ethylamino)ethanol 110-85-0, Piperazine, reactions 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 115-19-5, 2-Methyl-3-butyn-2-ol 121-05-1, N,N-Diisopropyl-1,2-ethanediamine 123-00-2, 3-(4-Morpholinyl)-1-propanamine 123-75-1, Pyrrolidine, reactions 124-40-3, N,N-Dimethylamine, reactions 140-88-5, Ethyl acrylate 141-32-2, Butyl acrylate 141-43-5, 2-Aminoethanol, reactions 142-25-6, N,N,N'-Trimethyl-1,2-ethanediamine 156-87-6, 3-Amino-1-propanol 177-11-7, 1,4-Dioxa-8-azaspiro[4.5]decane 327-78-6 329-01-1, 1-Isocyanato-3-trifluoromethylbenzene 367-24-8, 4-Bromo-2-fluoroaniline 394-41-2, 3-Fluoro-4-nitrophenol 404-71-7 462-08-8, 3-Pyridinamine 498-94-2, 4-Piperidinecarboxylic acid 501-53-1, Benzyl chloroformate 506-59-2, Dimethylamine hydrochloride 536-74-3, Ethynylbenzene 555-57-7 583-75-5, 4-Bromo-2-methylphenylamine 593-51-1, Methylamine hydrochloride 598-41-4, Glycinamide 616-30-8, 3-Amino-1,2-propanediol 621-29-4, 1-Isocyanato-3-methylbenzene 622-26-4, 2-(4-Piperidinyl)ethanol 627-19-0, 1-Pentyne 627-41-8, 3-Methoxy-1-propyne 638-29-9, Pentanoyl chloride 656-65-5, 4-Bromo-3-fluoroaniline 688-49-3 877-96-3 924-73-2, Ethyl β-alaninate 927-74-2, 3-Butyn-1-ol 929-06-6, 2-(2-Aminoethoxy)ethanol 1075-34-9 1122-72-1, 6-Methyl-2-pyridinecarboxaldehyde 1195-45-5 1548-13-6 1591-97-5 1632-83-3, 1-Methyl-1H-benzimidazole 1663-39-4, tert-Butyl acrylate 1664-39-7 1679-18-1, 4-Chlorophenylboronic acid 1692-15-5, (4-Pyridyl)boronic acid 1692-25-7, (3-Pyridyl)boronic acid 1711-06-4, 3-Methylbenzoyl chloride 1761-61-1, 5-Bromo-2-hydroxybenzaldehyde 1765-93-1, 4-Fluorophenylboronic acid 1820-80-0, 1H-Pyrazol-3-amine 1899-93-0, 3-Methylbenzenesulfonyl chloride 1945-84-2, 2-Ethynylpyridine 1985-12-2, 1-Bromo-4-isothiocyanatobenzene 2038-03-1, 2-(4-Morpholinyl)ethanamine 2285-12-3, 1-Isocyanato-2-(trifluoromethyl)benzene 2450-71-7, Propargylamine 2510-22-7, 4-Ethynylpyridine 2510-23-8, 3-Ethynylpyridine 2706-56-1, 2-(2-Pyridinyl)ethanamine

2909-38-8 2978-58-7, 1,1-Dimethyl-2-propynylamine 3197-06-6 3234-64-8, 1,1-Diethylpropargylamine 3320-87-4 3529-08-6, 1-Piperidinepropanamine 3529-10-0, N,N-Dimethyl-1,4-butanediamine 3644-18-6 3731-51-9, 1-(2-Pyridinyl)methanamine 3731-52-0, 1-(3-Pyridinyl)methanamine 3731-53-1, 1-(4-Pyridinyl)methanamine 4079-68-9 4318-37-0, 1-Methyl-1,4-diazepane 4543-96-8, N,N,N'-Trimethyl-1,3-propanediamine 4572-03-6, 3-(4-Methyl-1-piperazinyl)-1-propanamine 4746-97-8, 1,4-Dioxaspiro[4.5]decan-8-one 4753-75-7 4892-89-1, 4-[2-(1-Piperazinyl)ethyl]morpholine 4923-87-9, 5-Bromobenzo[b]thiophene 5036-48-6, 3-(1H-Imidazol-1-yl)-1-propanamine 5122-94-1, 1,1'-Biphenyl-4-ylboronic acid 5221-62-5 5332-25-2, 6-Bromoquinoline 5355-68-0, 1-Isopropyl-4-piperidinone 5382-16-1, 4-Piperidinol 5390-04-5, 4-Pentyn-1-ol 5467-74-3, 4-Bromophenylboronic acid 5625-67-2, 2-Piperazinone 5651-88-7 5720-05-8, 4-Methylphenylboronic acid 5720-07-0, 4-Methoxyphenylboronic acid 5815-70-3, 1-Piperazinepropanamide 5959-36-4, Ethyl 4-aminobutanoate 6089-09-4, 4-Pentynoic acid 6097-08-1 6165-68-0, (2-Thienyl)boronic acid 6165-69-1, (3-Thienyl)boronic acid 6238-14-8, 1-Azabicyclo[2.2.2]octan-3-amine 6241-30-1 6281-42-1, 1-(2-Aminoethyl)-2-imidazolidinone 6323-79-1 6456-74-2, tert-Butyl glycinate 6850-65-3, 4-Aminocyclohexanol 7154-73-6, 2-(1-Pyrrolidinyl)ethanamine 7209-11-2 7223-38-3, N,N-Dimethyl-N-(2-propynyl)amine 7223-50-9, N-Propargylphthalimide 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidinone 10075-52-2, 5-Bromo-1-methyl-1H-indole 10365-98-7, 3-Methoxyphenylboronic acid 10400-19-8, Nicotinoyl chloride 13035-19-3, 4-Piperidinamine 13258-63-4, 2-(4-Pyridinyl)ethanamine 13291-18-4, Isopropenylmagnesium bromide 13331-23-2, (2-Furyl)boronic acid 13484-40-7, 1-(2-Methoxyethyl)piperazine 13610-02-1, (2-Propynyloxy)benzene 13737-05-8, Pyridyl-2-trimethylstannane 13889-98-0, 1-Acetylpiperazine 14254-57-0, Isonicotinoyl chloride 15231-41-1, tert-Butyl β-alaninate 16136-58-6, 1-Methyl-1H-2-indolecarboxylic acid 16413-26-6 16520-62-0 16744-98-2 17933-03-8, 3-Methylphenylboronic acid 19248-13-6 19596-07-7, 4-Pentynenitrile 20244-61-5, 2,4,4,6-Tetrabromo-2,5-cyclohexadienone 21402-26-6, 4-Bromo-3-chloroaniline 22190-33-6, 5-Bromo-2,3-dihydro-1H-indole 22763-65-1 22764-55-2 22795-97-7 22795-99-9 23138-50-3 23138-55-8 23138-64-9 23145-07-5, 5-Bromobenzofuran 23159-07-1, 3-(1-Pyrrolidinyl)-1-propanamine 23995-88-2, 1-(1-Methyl-4-piperidinyl)piperazine 24123-14-6, N-(2-Aminoethyl)glycine 26116-12-1, (1-Ethyl-2-pyrrolidinyl)methylamine 27329-70-0, 5-Formyl-2-furylboronic acid 27339-38-4 27578-60-5, 2-(1-Piperidinyl)ethanamine 28395-76-8 28479-22-3 28611-39-4, 4-(N,N-Dimethylamino)phenylboronic acid 28739-42-6 29943-42-8, Tetrahydro-4H-pyran-4-one 30389-18-5, 1-Ethynylcyclohexanamine 30418-59-8, 3-Aminophenylboronic acid 31270-80-1, 4-Chlorofuro[3,2-c]pyridine 32161-06-1, 1-Acetyl-4-piperidinone 32316-92-0, 2-Naphthaleneboronic acid 34064-86-3, 1-Piperazinepropanenitrile 34420-17-2 34803-68-4, 2-(1-Piperazinyl)pyrazine 35161-71-8, N-Methyl-N-(2-propynyl)amine 39137-36-5 39546-32-2, 4-Piperidinecarboxamide 39827-11-7, 1-Benzothiophene-2-carbonyl chloride 40172-95-0, 1-(2-Furoyl)piperazine 41221-47-0, Methyl 3-isocyanatobenzoate 41458-65-5, 2-Amino-4,6-dimethylphenol 41717-28-6, 2-Benzofurancarbonyl chloride 50529-33-4 50541-93-0, 1-Benzyl-4-piperidinamine 51067-38-0, 4-Phenoxyphenylboronic

acid 51163-27-0 51387-90-7 52415-29-9, 6-Bromo-1H-indole
53369-71-4, N,N,2,2-Tetramethyl-1,3-propanediamine 54132-75-1,
1-Isocyanato-3,5-dimethylbenzene 54263-82-0,
3-Dimethylaminobenzoyl chloride 55552-70-0, (3-Furyl)boronic
acid 57260-71-6, tert-Butyl 1-piperazinecarboxylate
57260-73-8, tert-Butyl (2-aminoethyl)carbamate 58881-45-1,
1H-Indole-2-carbonyl chloride 59016-93-2, 4-
(Hydroxymethyl)phenylboronic acid 61676-62-8,
2-Isopropoxy-4,4,5,5-tetramethyl-[1,3,2]dioxaborolane
62348-13-4, 5-Isoxazolecarbonyl chloride 63503-60-6,
3-Chlorophenylboronic acid 63837-11-6, 5-Bromo-2-
methylbenzothiazole 66416-72-6, 4-Bromo-2-iodophenylamine
69225-59-8, 3,3-Dimethyl-1,5-dioxaspiro[5.5]undecan-9-one
69922-27-6, 1-Fluoro-2-isocyanato-4-(trifluoromethyl)benzene
69922-28-7, 5-Isocyanato-1,3-benzodioxole 73183-34-3,
4,4,4',4',5,5,5',5'-Octamethyl-2,2'-bi-1,3,2-dioxaborolane
73579-08-5 73874-95-0, tert-Butyl (4-piperidinyl)carbamate
78887-39-5, 3-Acetamidophenylboronic acid 83732-75-6
87120-72-7, tert-Butyl 4-amino-1-piperidinecarboxylate
87199-17-5, 4-Formylphenylboronic acid 87873-72-1,
1-Isocyanato-3-phenoxybenzene 89415-43-0, 4-Aminophenylboronic
acid 92136-39-5, tert-Butyl (2-propynyl)carbamate 94839-07-3,
1,3-Benzodioxol-5-ylboronic acid 95538-31-1 98437-24-2,
(Benzo[b]furan-2-yl)boronic acid 101251-09-6,
4-Acetamidophenylboronic acid 102561-42-2 103686-16-4
108122-24-3 109299-78-7, (5-Pyrimidinyl)boronic acid
117625-90-8 120912-37-0, 5-Isocyanatoindane
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thienopyridines as protein kinase **inhibitors**
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IT 122775-35-3, (3,4-Dimethoxyphenyl)boronic acid 126747-14-6,
4-Cyanophenylboronic acid 128796-39-4, 4-
(Trifluoromethyl)phenylboronic acid 132664-85-8 132883-44-4,
(S)-N,N-Dimethyl-3-pyrrolidinamine 135632-53-0, tert-Butyl
(4-piperidinylmethyl)carbamate 135884-31-0, [1-(tert-
Butoxycarbonyl)-1H-pyrrol-2-yl]boronic acid 136466-94-9,
(2,6-Difluoro-3-pyridinyl)boronic acid 139057-86-6 139111-44-7
139301-27-2, (4-Trifluoromethoxyphenyl)boronic acid 144104-59-6,
1H-Indol-5-ylboronic acid 144222-22-0, tert-Butyl
4-(aminomethyl)-1-piperidinecarboxylate 144432-85-9,
3-Chloro-4-fluorophenylboronic acid 146093-46-1, tert-Butyl
4-(2-aminoethyl)-1-piperidinecarboxylate 146631-00-7,
4-(Benzyloxy)phenylboronic acid 147081-44-5 147123-47-5,
3-Amino-2-thiophenecarboxamide 147621-18-9 148355-75-3
150349-36-3, tert-Butyl N-(3-aminopropyl)-N-(methyl)carbamate
153737-25-8 162167-97-7, tert-Butyl 3-(aminomethyl)-1-
piperidinecarboxylate 163105-89-3, 6-Methoxy-3-pyridinylboronic
acid 170078-84-9 170353-24-9 184637-48-7, tert-Butyl
3-amino-1-piperidinecarboxylate 186550-13-0, tert-Butyl
3-amino-1-pyrrolidinecarboxylate 190774-50-6,
1-Fluoro-2-isocyanato-4-methylbenzene 192182-56-2,
(4-Isoquinolinyl)boronic acid 195314-59-1, tert-Butyl
(4-aminocyclohexyl)carbamate 199174-29-3 199175-10-5,
tert-Butyl (3S)-3-(aminomethyl)-1-pyrrolidinecarboxylate
203941-94-0 207981-46-2, 2-Fluoro-5-trifluoromethylbenzoyl
chloride 213318-44-6 214360-73-3, 4-(4,4,5,5-Tetramethyl-1,3,2-
dioxaborolan-2-yl)aniline 224309-80-2 239482-98-5
270912-72-6 346585-03-3 380430-57-9, 4-
(Methylsulfonylamino)phenylboronic acid 397244-99-4
422545-96-8 436852-18-5, 4-[3-(1-Piperazinyl)propyl]morpholine
461046-73-1, 1-[2-(2-Thienyl)ethyl]piperazine 461697-30-3,
N-[2-Methoxy-4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-

yl)phenyl]-1-methyl-1H-indole-2-carboxamide 461699-81-0,
2-Methoxy-4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)aniline
521273-76-7 590418-31-8 608534-37-8 628692-15-9,
2-Methoxy-5-pyrimidinylboronic acid 681847-93-8 693774-55-9,
(2,6-Dimethyl-3-pyridinyl)boronic acid 796967-62-9 832694-74-3
832694-87-8 832695-88-2 832696-86-3 832697-40-2
832698-01-8 832698-69-8 832698-99-4 832699-10-2
837392-86-6 837392-87-7 837392-88-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thienopyridines as protein kinase **inhibitors**
)

IT 5304-21-2P 7223-42-9P 20572-01-4P 20870-78-4P 29064-82-2P,
3-Bromo-4-chlorothieno[3,2-c]pyridine 45813-02-3P 59557-91-4P,
4-Bromo-2-methoxyaniline 78888-18-3P, tert-Butyl
(allyl)carbamate 113486-06-9P 118618-61-4P,
1-Methyl-1H-indole-2-carbonyl chloride 124045-51-8P
130495-08-8P 183173-44-6P 220939-72-0P 256935-94-1P
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519054-55-8P 765949-02-8P, N-(3-Methylphenyl)-N'-[4-(4,4,5,5-
tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]urea 791614-90-9P
799293-73-5P 799293-74-6P 799293-83-7P 799293-85-9P
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832694-98-1P **832694-99-2P** 832695-04-2P 832695-05-3P
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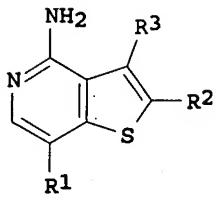
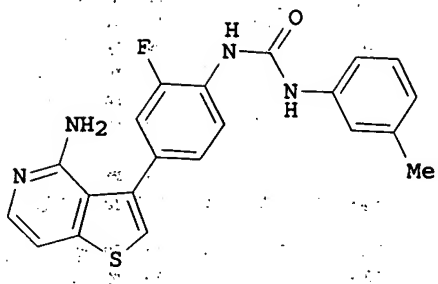
837392-83-3P 837392-84-4P 837392-85-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation of thienopyridines as protein kinase **inhibitors**
)

L138 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2005:78240 Document No. 142:176820 Preparation of thienopyridines as protein kinase **inhibitors**. Betschmann, Patrick; Burchat, Andrew; Calderwood, David; Curtin, Michael L.; Davidsen, Steven K.; Davis, Heather M.; Frey, Robin R.; Heyman, Howard R.; Hirst, Gavin; Hrnciar, Peter; Michaelides, Michael; Rafferty, Paul (USA). U.S. Pat. Appl. Publ. US 2005020619 A1 20050127, 76 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-626092 20030724.
GI



I



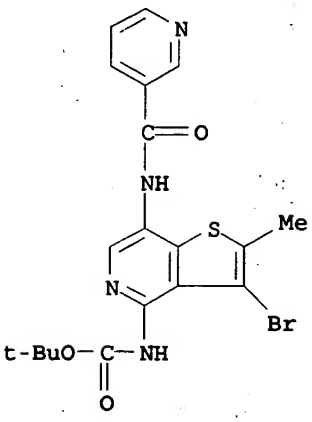
II

AB Title compds. I [wherein R1 = H, nitro, (un)substituted alk(en/yn)yl or amino; R2 = H or alkyl; R3 = halo, (un)substituted (hetero)aryl or heterocyclyl, or therapeutically acceptable salts thereof] were prepared as protein kinase **inhibitors.** For example, urea II was synthesized via addition reaction of the corresponding amine (preparation given) with 1-isocyanato-3-methylbenzene. Exemplified compds. I **inhibited** KDR and Lck with IC50 values of from 0.004 FM to 50 μM and from 0.06 μM to 50 μM, resp. Therefore, I and their pharmaceutical compns. are useful for the treatment of such as cancer, ocular and cardiovascular diseases.

IT **832694-99-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of thienopyridines as protein kinase **inhibitors**)

RN 832694-99-2 HCAPLUS

CN Carbamic acid, [3-bromo-2-methyl-7-[(3-pyridinylcarbonyl)amino]thieno[3,2-c]pyridin-4-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



IC ICM C07D498-02
ICS A61K031-4743

INCL 514301000; 546114000

CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63

ST thienopyridine prepn protein kinase KDR Lck **inhibitor**; cancer ocular cardiovascular disease treatment thienopyridine

prepn
IT Inflammation
(Crohn's disease, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Intestine, disease
(Crohn's, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Bone, disease
(Paget's, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(c-kit, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)
IT Lung, disease
(chronic obstructive, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Inflammation
(chronic, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Anti-inflammatory agents
(chronic; preparation of thienopyridine as protein kinase **inhibitors**)
IT Uterus, disease
(endometriosis, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fyn, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(gene lyn, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)
IT Inflammation
Kidney, disease
(glomerulonephritis, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Capillary vessel, disease
(hereditary hemorrhagic telangiectasia, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Infection
(herpes zoster, treatment infection from; preparation of thienopyridines as protein kinase **inhibitors**)
IT Ovary, disease
(hyperstimulation syndrome, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Blood, disease
(hyperviscosity syndrome, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Intestine, disease
(inflammatory, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Menstrual disorder
(menorrhagia, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Skin, disease
(pemphigoid, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Kidney, disease
(polycystic, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)

IT Nerve, disease
(polyneuropathy, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Antiarthritics
Antidiabetic agents
Antirheumatic agents
Antitumor agents
Cardiovascular agents
(preparation of thienopyridine as protein kinase **inhibitors**)
IT Anti-ischemic agents
Antiasthmatics
Antiviral agents
Diuretics
Human
Protozoacides
(preparation of thienopyridines as protein kinase **inhibitors**)
IT Brain, disease
(stroke, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Arthritis
Synovial membrane, disease
(synovitis, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Lupus erythematosus
(systemic, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)
IT Inflammation
Thyroid gland, disease
(thyroiditis, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Infection
(toxoplasmosis, treatment infection from; preparation of thienopyridines as protein kinase **inhibitors**)
IT Injury
(trauma, treatment of; preparation of thienopyridines as protein kinase **inhibitors**)
IT Human herpesvirus
Human immunodeficiency virus
Parapoxvirus
Protozoa
(treatment infection from; preparation of thienopyridines as protein kinase **inhibitors**)
IT Cardiovascular system, disease
Cirrhosis
Diabetes insipidus
Diabetes mellitus
Eye, disease
Fibrosis
Lyme disease
Multiple sclerosis
Neoplasm
Osteoarthritis
Psoriasis
Rheumatoid arthritis
Sarcoidosis
Sepsis
Sickle cell anemia
Transplant rejection
(treatment of; preparation of thienopyridine as protein kinase **inhibitors**)

IT Asthma
Burn
Edema
Hypoxia
Ischemia
Preeclampsia
(treatment of; preparation of thienopyridines as protein kinase **inhibitors**)

IT Vascular endothelial growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type VEGFR-2, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT Nervous system agents
(von Hippel Lindau disease; preparation of thienopyridine as protein kinase **inhibitors**)

IT Nervous system, neoplasm
(von Hippel-Lindau disease, treatment of; preparation of thienopyridine as protein kinase **inhibitors**)

IT Platelet-derived growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(α, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT Platelet-derived growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(β, **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT 108891-60-7, CSF-1 receptor **tyrosine kinase**
114051-78-4 138359-29-2, Ckit kinase 141349-91-9, Yes kinase
141350-03-0, FLT-1 kinase 144638-77-7, Protein kinase, FLT-4
144697-17-6 144941-32-2 144941-35-5, Blk **tyrosine kinase** 145539-86-2, Hck Kinase 147230-71-5, FLT3 receptor **tyrosine kinase** 148047-29-4, Tie-2 kinase 150316-07-7, Cot kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT 832694-06-1P 832694-07-2P 832694-11-8P 832694-12-9P
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832696-71-6P 832696-95-4P 832697-99-1P 832698-00-7P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(kinase **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT 796967-48-1P, N-[4-(4,4,5,5-Tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]-N'-[3-(trifluoromethyl)phenyl]urea 832693-89-7P
832693-92-2P 832693-93-3P 832693-94-4P 832693-95-5P
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation);
THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)
(kinase **inhibitor**; preparation of thienopyridines as
protein kinase **inhibitors**)

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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(kinase **inhibitor**; preparation of thienopyridines as protein kinase **inhibitors**)

IT 56-82-6, 2,3-Dihydroxypropanal 61-54-1, 2-(1H-Indol-3-yl)ethanamine 62-53-3, Aniline, reactions 90-04-0, o-Anisidine 92-54-6, 1-Phenylpiperazine 98-09-9, Benzenesulfonyl chloride 98-80-6, Phenylboronic acid 99-98-9, N,N-Dimethyl-1,4-benzenediamine 100-36-7, N,N-Diethyl-1,2-ethanediamine 103-71-9, Isocyanatobenzene, reactions 103-76-4, 2-(1-Piperazinyl)ethanol 104-78-9, N,N-Diethyl-1,3-propanediamine 107-19-7, 2-Propyn-1-ol 108-00-9, N,N-Dimethyl-1,2-ethanediamine 108-15-6 109-01-3, 1-Methylpiperazine 109-55-7, N,N-Dimethyl-1,3-propanediamine 109-85-3, 2-Methoxyethylamine 109-89-7, Diethylamine, reactions 109-90-0, Isocyanatoethane 110-73-6, 2-(Ethylamino)ethanol 110-85-0, Piperazine, reactions 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 115-19-5, 2-Methyl-3-butyn-2-ol 121-05-1, N,N-Diisopropyl-1,2-ethanediamine 123-00-2, 3-(4-Morpholinyl)-1-propanamine 124-40-3, N,N-Dimethylamine, reactions 140-88-5, Ethyl acrylate 141-32-2, Butyl acrylate 141-43-5, 2-Aminoethanol, reactions 142-25-6, N,N,N'-Trimethyl-1,2-ethanediamine 156-87-6, 3-Amino-1-propanol 327-78-6 329-01-1, 1-Isocyanato-3-trifluoromethylbenzene 367-24-8, 4-Bromo-2-fluoroaniline 404-71-7 462-08-8, 3-Pyridinamine 498-94-2, 4-Piperidinecarboxylic acid 501-53-1, Benzyl chloroformate 506-59-2, Dimethylamine hydrochloride 536-74-3, Ethynylbenzene 555-57-7 593-51-1, Methylamine hydrochloride 598-41-4, Glycinamide 616-30-8, 3-Amino-1,2-propanediol 621-29-4, 1-Isocyanato-3-methylbenzene 622-26-4, 2-(4-Piperidinyl)ethanol 627-19-0, 1-Pentyne 627-41-8, 3-Methoxy-1-propyne 638-29-9, Pentanoyl chloride 656-65-5, 4-Bromo-3-fluoroaniline 688-49-3 877-96-3

924-73-2, Ethyl β-alaninate 927-74-2, 3-Butyn-1-ol
929-06-6, 2-(2-Aminoethoxy)ethanol 1122-72-1,
6-Methyl-2-pyridinecarboxaldehyde 1195-45-5 1548-13-6
1591-97-5 1632-83-3, 1-Methyl-1H-benzimidazole 1663-39-4,
tert-Butyl acrylate 1664-39-7 1679-18-1, 4-Chlorophenylboronic
acid 1692-15-5, (4-Pyridyl)boronic acid 1692-25-7,
(3-Pyridyl)boronic acid 1711-06-4, 3-Methylbenzoyl chloride
1765-93-1, 4-Fluorophenylboronic acid 1820-80-0,
1H-Pyrazol-3-amine 1899-93-0, 3-Methylbenzenesulfonyl chloride
1945-84-2, 2-Ethynylpyridine 1985-12-2, 1-Bromo-4-
isothiocyanatobenzene 2038-03-1, 2-(4-Morpholinyl)ethanamine
2285-12-3, 1-Isocyanato-2-(trifluoromethyl)benzene 2510-22-7,
4-Ethynylpyridine 2510-23-8, 3-Ethynylpyridine 2706-56-1,
2-(2-Pyridinyl)ethanamine 2909-38-8 2978-58-7,
1,1-Dimethyl-2-propynylamine 3197-06-6 3320-87-4 3529-08-6,
1-Piperidinepropanamine 3529-10-0, N,N-Dimethyl-1,4-
butanediamine 3644-18-6 3731-51-9, 1-(2-Pyridinyl)methanamine
3731-52-0, 1-(3-Pyridinyl)methanamine 3731-53-1,
1-(4-Pyridinyl)methanamine 4079-68-9 4318-37-0,
1-Methyl-1,4-diazepane 4543-96-8, N,N,N'-Trimethyl-1,3-
propanediamine 4572-03-6, 3-(4-Methyl-1-piperazinyl)-1-
propanamine 4746-97-8, 1,4-Dioxaspiro[4.5]decan-8-one
4753-75-7 4892-89-1, 4-[2-(1-Piperazinyl)ethyl]morpholine
5036-48-6, 3-(1H-Imidazol-1-yl)-1-propanamine 5122-94-1,
1,1'-Biphenyl-4-ylboronic acid 5221-62-5 5355-68-0,
1-Isopropyl-4-piperidinone 5382-16-1, 4-Piperidinol 5390-04-5,
4-Pentyn-1-ol 5467-74-3, 4-Bromophenylboronic acid 5625-67-2,
2-Piperazinone 5651-88-7 5720-05-8, 4-Methylphenylboronic acid
5720-07-0, 4-Methoxyphenylboronic acid 5815-70-3,
1-Piperazinepropanamide 5959-36-4, Ethyl 4-aminobutanoate
6089-09-4, 4-Pentynoic acid 6097-08-1 6165-68-0,
(2-Thienyl)boronic acid 6165-69-1, (3-Thienyl)boronic acid
6238-14-8, 1-Azabicyclo[2.2.2]octan-3-amine 6241-30-1
6281-42-1, 1-(2-Aminoethyl)-2-imidazolidinone 6456-74-2,
tert-Butyl glycinate 6850-65-3, 4-Aminocyclohexanol 7154-73-6,
2-(1-Pyrrolidinyl)ethanamine 7209-11-2 7223-38-3,
N,N-Dimethyl-N-(2-propynyl)amine 7663-77-6, 1-(3-Aminopropyl)-2-
pyrrolidinone 10365-98-7, 3-Methoxyphenylboronic acid
10400-19-8, Nicotinoyl chloride 13035-19-3, 4-Piperidinamine
13258-63-4, 2-(4-Pyridinyl)ethanamine 13331-23-2,
(2-Furyl)boronic acid 13484-40-7, 1-(2-Methoxyethyl)piperazine
13610-02-1, (2-Propynyloxy)benzene 13889-98-0,
1-Acetylpiperazine 14254-57-0, Isonicotinoyl chloride
15231-41-1, tert-Butyl β-alaninate 16136-58-6,
1-Methyl-1H-2-indolecarboxylic acid 16413-26-6 16520-62-0
16744-98-2 17933-03-8, 3-Methylphenylboronic acid 19248-13-6
19596-07-7, 4-Pentynenitrile 20244-61-5, 2,4,4,6-Tetrabromo-2,5-
cyclohexadienone 21402-26-6, 4-Bromo-3-chloroaniline
22763-65-1 22764-55-2 22795-97-7 22795-99-9 23138-50-3
23138-55-8 23138-64-9 23159-07-1, 3-(1-Pyrrolidinyl)-1-
propanamine 23995-88-2, 1-(1-Methyl-4-piperidinyl)piperazine
24123-14-6, N-(2-Aminoethyl)glycine 26116-12-1,
(1-Ethyl-2-pyrrolidinyl)methylamine 27329-70-0,
5-Formyl-2-furylboronic acid 27339-38-4 27578-60-5,
2-(1-Piperidinyl)ethanamine 28395-76-8 28479-22-3 28739-42-6
29943-42-8, Tetrahydro-4H-pyran-4-one 30389-18-5,
1-Ethynylcyclohexanamine 30418-59-8, 3-Aminophenylboronic acid
32161-06-1, 1-Acetyl-4-piperidinone 34064-86-3,
1-Piperazinepropanenitrile 34803-68-4, 2-(1-Piperazinyl)pyrazine
35161-71-8, N-Methyl-N-(2-propynyl)amine 39137-36-5
39546-32-2, 4-Piperidinecarboxamide 39827-11-7,
1-Benzothiophene-2-carbonyl chloride 40172-95-0,

1-(2-Furoyl)piperazine 41221-47-0, Methyl 3-isocyanatobenzoate 41458-65-5, 2-Amino-4,6-dimethylphenol 41717-28-6, 2-Benzofurancarbonyl chloride 50529-33-4 50541-93-0, 1-Benzyl-4-piperidinamine 51067-38-0, 4-Phenoxyphenylboronic acid 51163-27-0 51387-90-7 53369-71-4, N,N,2,2-Tetramethyl-1,3-propanediamine 54132-75-1, 1-Isocyanato-3,5-dimethylbenzene 54263-82-0, 3-Dimethylaminobenzoyl chloride 55552-70-0, (3-Furyl)boronic acid 57260-71-6, tert-Butyl 1-piperazinecarboxylate 57260-73-8, tert-Butyl (2-aminoethyl)carbamate 58881-45-1, 1H-Indole-2-carbonyl chloride 59016-93-2, 4-(Hydroxymethyl)phenylboronic acid 62348-13-4, 5-Isoxazolecarbonyl chloride 63503-60-6, 3-Chlorophenylboronic acid 69225-59-8, 3,3-Dimethyl-1,5-dioxaspiro[5.5]undecan-9-one 69922-27-6, 1-Fluoro-2-isocyanato-4-(trifluoromethyl)benzene 69922-28-7, 5-Isocyanato-1,3-benzodioxole 73183-34-3, 4,4,4',4',5,5,5',5'-Octamethyl-2,2'-bi-1,3,2-dioxaborolane 73579-08-5 73874-95-0, tert-Butyl (4-piperidinyl)carbamate 83732-75-6 87120-72-7, tert-Butyl 4-amino-1-piperidinecarboxylate 87873-72-1, 1-Isocyanato-3-phenoxybenzene 92136-39-5, tert-Butyl (2-propynyl)carbamate 94839-07-3, 1,3-Benzodioxol-5-ylboronic acid 95538-31-1 98437-24-2, (Benzo[b]furan-2-yl)boronic acid 102561-42-2 103686-16-4 108122-24-3 109299-78-7, (5-Pyrimidinyl)boronic acid 120912-37-0, 5-Isocyanatoindane 122775-35-3, (3,4-Dimethoxyphenyl)boronic acid 126747-14-6, 4-Cyanophenylboronic acid 128796-39-4, 4-(Trifluoromethyl)phenylboronic acid 132664-85-8 132883-44-4, (S)-N,N-Dimethyl-3-pyrrolidinamine 135632-53-0, tert-Butyl (4-piperidinylmethyl)carbamate 135884-31-0, [1-(tert-Butoxycarbonyl)-1H-pyrrol-2-yl]boronic acid 136466-94-9, (2,6-Difluoro-3-pyridinyl)boronic acid 139057-86-6 139111-44-7 139301-27-2, (4-Trifluoromethoxyphenyl)boronic acid 144104-59-6, 1H-Indol-5-ylboronic acid 144222-22-0, tert-Butyl 4-(aminomethyl)-1-piperidinecarboxylate 144432-85-9, 3-Chloro-4-fluorophenylboronic acid 146093-46-1, tert-Butyl 4-(2-aminoethyl)-1-piperidinecarboxylate 146631-00-7, 4-(Benzyloxy)phenylboronic acid 147081-44-5 147123-47-5, 3-Amino-2-thiophenecarboxamide 147621-18-9 150349-36-3, tert-Butyl N-(3-aminopropyl)-N-(methyl)carbamate 153737-25-8 162167-97-7, tert-Butyl 3-(aminomethyl)-1-piperidinecarboxylate 163105-89-3, 6-Methoxy-3-pyridinylboronic acid 170078-84-9 170353-24-9 184637-48-7, tert-Butyl 3-amino-1-piperidinecarboxylate 186550-13-0, tert-Butyl 3-amino-1-pyrrolidinecarboxylate 190774-50-6, 1-Fluoro-2-isocyanato-4-methylbenzene 192182-56-2, (4-Isoquinolinyl)boronic acid 195314-59-1, tert-Butyl (4-aminocyclohexyl)carbamate 199174-29-3 199175-10-5, tert-Butyl (3S)-3-(aminomethyl)-1-pyrrolidinecarboxylate 203941-94-0 207981-46-2, 2-Fluoro-5-trifluoromethylbenzoyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thienopyridines as protein kinase **inhibitors**)

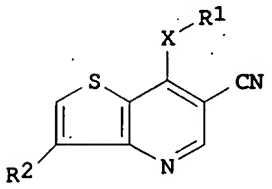
IT 213318-44-6 214360-73-3, 4-(4,4,5,5-Tetramethyl-1,3,2-dioxaborolan-2-yl)aniline 224309-80-2 239482-98-5 270912-72-6 346585-03-3 397244-99-4 422545-96-8 436852-18-5, 4-[3-(1-Piperazinyl)propyl]morpholine 461046-73-1, 1-[2-(2-Thienyl)ethyl]piperazine 461697-30-3, N-[2-Methoxy-4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]-1-methyl-1H-indole-2-carboxamide 461699-81-0, 2-Methoxy-4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)aniline

521273-76-7 590418-31-8 608534-37-8 628692-15-9, 2-Methoxy-5-pyrimidinylboronic acid 681847-93-8 693774-55-9, (2,6-Dimethyl-3-pyridinyl)boronic acid 832694-74-3 832694-87-8 832695-88-2 832696-86-3 832697-40-2 832698-01-8 832698-69-8 832698-99-4 832699-10-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thienopyridines as protein kinase **inhibitors**)

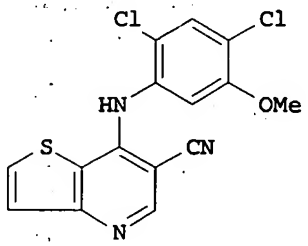
IT 20572-01-4P 29064-82-2P, 3-Bromo-4-chlorothieno[3,2-c]pyridine 59557-91-4P, 4-Bromo-2-methoxyaniline 78888-18-3P, tert-Butyl (allyl)carbamate 118618-61-4P, 1-Methyl-1H-indole-2-carbonyl chloride 262433-01-2P 262433-02-3P 765949-02-8P, N-(3-Methylphenyl)-N'-[4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)phenyl]urea 799293-83-7P 799293-85-9P 832693-90-0P 832693-97-7P 832694-01-6P 832694-03-8P 832694-04-9P 832694-09-4P 832694-16-3P 832694-17-4P 832694-23-2P 832694-72-1P 832694-76-5P 832694-79-8P 832694-83-4P 832694-91-4P 832694-93-6P 832694-97-0P 832694-98-1P **832694-99-2P** 832695-04-2P 832695-05-3P 832695-06-4P 832695-08-6P 832695-09-7P 832695-49-5P 832695-60-0P 832695-69-9P 832695-73-5P 832695-76-8P 832695-79-1P 832695-81-5P 832695-92-8P 832696-35-2P 832696-36-3P 832696-37-4P 832696-38-5P 832696-70-5P 832696-84-1P 832696-85-2P 832696-87-4P 832696-88-5P 832696-89-6P 832697-43-5P 832697-55-9P 832697-56-0P 832697-57-1P 832697-58-2P 832697-59-3P 832697-60-6P 832697-62-8P 832697-63-9P 832697-70-8P 832697-78-6P 832697-82-2P 832697-83-3P 832697-84-4P 832698-80-3P 832698-81-4P 832698-93-8P 832698-94-9P 832699-12-4P 832699-13-5P 832699-15-7P 832699-17-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of thienopyridines as protein kinase **inhibitors**)

L138 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:1036761 Document No. 142:6510 Preparation of thieno[3,2-b]pyridine-6-carbonitriles as protein **tyrosine kinase inhibitors.** Boschelli, Diane Harris; Zhang, Nan; Barrios, Sosa Ana Carolina; Durutlic, Haris; Wu, Biqi (Wyeth, John, and Brother Ltd., USA). U.S. Pat. Appl. Publ. US 2004242883 A1 20041202, 75 pp., Cont.-in-part of U.S. Ser. No. 719,359. (English). CODEN: USXXCO. APPLICATION: US 2004-845710 20040514. PRIORITY: US 2002-2002/PV42886U 20021125; US 2003-2003/719359 20031121.

GI



I



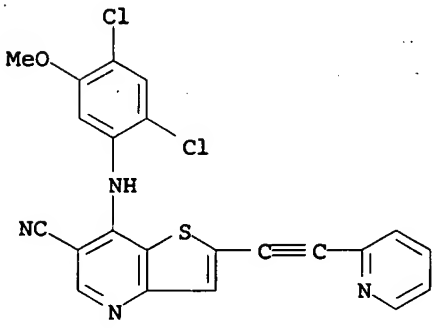
II

AB Title compds. I [wherein X = NH and derivs., O, SOm, NHCH2; m = 0-2; R1 = (un)substituted Ph; R2 = CHO, halo, R3, COXR3; R3 =

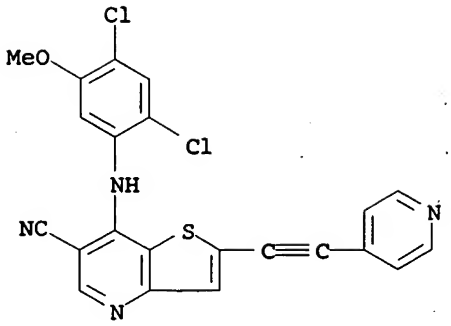
(un)substituted alkyl, alkenyl, alkynyl, heteroaryl; and pharmaceutically acceptable salts thereof] were prepared as protein **tyrosine kinase inhibitors.** Four biol. assays are given. For example, II was prepared by amination of 7-chlorothieno[3,2-b]pyridine-6-carbonitrile (preparation given) with 2,4-dichloro-5-methoxyaniline in THF in the presence of NaH at reflux. Selected I displayed IC50 values in the range of 5.3 nM to 5040 nM for the **inhibition** of human recombinant Src kinase. Thus, I and their pharmaceutical compns. are useful in the treatment of neoplasm, stroke, osteoporosis, polycystic kidney disease, autoimmune disease, rheumatoid arthritis, and transplant rejection (no data).

IT **700844-54-8P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-2-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile **700844-67-3P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-4-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile **700844-68-4P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-3-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile **700844-85-5P**, 7-[(4-Phenoxyphenyl)amino]-2-[(E)-2-(pyridin-4-yl)ethenyl]thieno[3,2-b]pyridine-6-carbonitrile **700844-88-8P**, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-3-yl)ethynyl]thieno[2,3-b]pyridine-5-carbonitrile **700845-27-8P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[6-[(dimethylamino)methyl]pyridin-2-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile **700845-40-5P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[5-[(dimethylamino)methyl]pyridin-2-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)

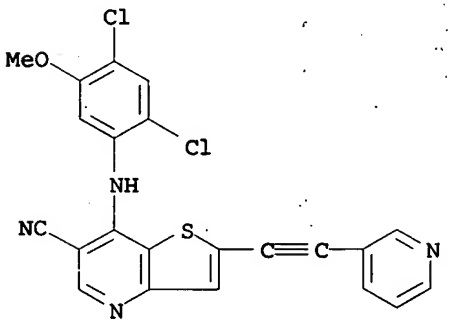
RN 700844-54-8 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-(2-pyridinylethynyl)- (9CI) (CA INDEX NAME)



RN 700844-67-3 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-(4-pyridinylethynyl)- (9CI) (CA INDEX NAME)

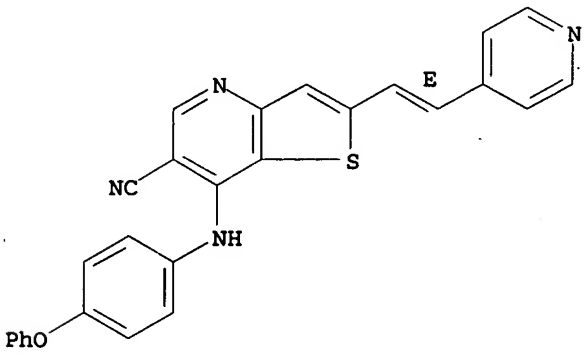


RN 700844-68-4 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-(3-pyridinylethynyl)- (9CI) (CA INDEX NAME)



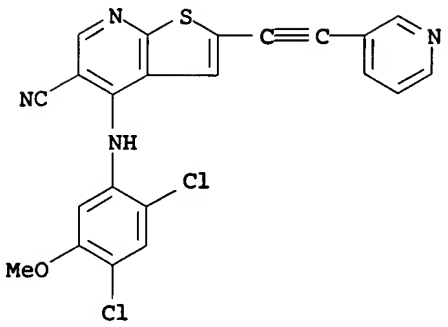
RN 700844-85-5 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(4-phenoxyphenyl)amino]-2-[(1E)-2-(4-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

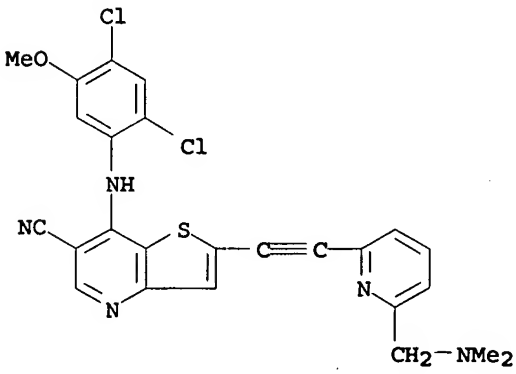


RN 700844-88-8 HCAPLUS
CN Thieno[2,3-b]pyridine-5-carbonitrile, 4-[(2,4-dichloro-5-methoxyphenyl)amino]-2-(3-pyridinylethynyl)- (9CI) (CA INDEX

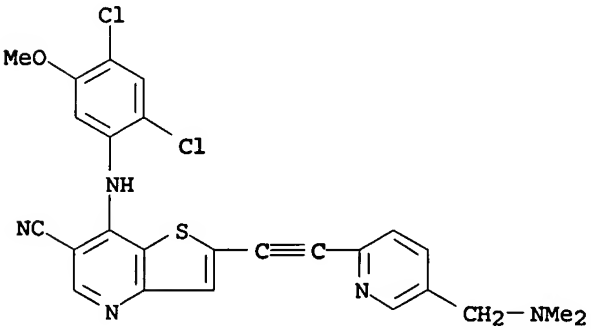
NAME)



RN 700845-27-8 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-[[6-[(dimethylamino)methyl]-2-pyridinyl]ethynyl]- (9CI) (CA INDEX NAME)



RN 700845-40-5 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-[[5-[(dimethylamino)methyl]-2-pyridinyl]ethynyl]- (9CI) (CA INDEX NAME)



IC ICM C07D498-02

ICS A61K031-4743
INCL 546114000; 514301000
CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63
ST thienopyridine carbonitrile prepn Src kinase **inhibitor** anticancer immunomodulator
IT Intestine, neoplasm
(colon, treatment; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)
IT Heart, disease
(infarction, treatment; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)
IT Kidney, disease
(polycystic, treatment; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)
IT Analgesics
Antirheumatic agents
Antitumor agents
Bone resorption **inhibitors**
Cardiovascular agents
Drug delivery systems
Human
Immunomodulators
(preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)
IT Brain, disease
(stroke, treatment; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)
IT Pain
(treatment of neuropathic; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)
IT Autoimmune disease
Leukemia
Liver, neoplasm
Lung, neoplasm
Mammary gland, neoplasm
Osteoporosis
Pancreas, neoplasm
Rheumatoid arthritis
Transplant rejection
(treatment; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)
IT 700844-36-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700844-39-9P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-iodothieno[2,3-b]pyridine-5-carbonitrile 700844-46-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700844-51-5P, 4-[6-Cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]benzoic acid 700844-57-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(3-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700844-59-3P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(4-formylphenyl)thieno[2,3-b]pyridine-5-carbonitrile 700844-61-7P, 4-[5-Cyano-4-[(3,4,5-trimethoxyphenyl)amino]thieno[2,3-b]pyridin-2-yl]butyric acid methyl ester 700844-62-8P, 2-(4-Hydroxybutyl)-4-

[(3,4,5-trimethoxyphenyl)amino]thieno[2,3-b]pyridine-5-carbonitrile 700844-65-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(trimethylsilyl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-66-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-ethynylthieno[3,2-b]pyridine-6-carbonitrile 700844-69-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-(1,3-dioxolan-2-yl)thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700844-70-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(5-formylthien-3-yl)thieno[3,2-b]pyridine-6-carbonitrile 700844-77-5P, 2-(4-Formylphenyl)-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-82-2P, 2-Iodo-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-86-6P, tert-Butyl (2E)-3-[6-cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]prop-2-enoate 700844-89-9P, (2E)-3-[6-Cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]prop-2-enoic acid 700844-90-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(2-formyl-1-methyl-1H-imidazol-5-yl)thieno[3,2-b]pyridine-6-carbonitrile 700844-91-3P, 2-(4-Formylphenyl)-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 798574-84-2P, 3-Bromo-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 798574-85-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-3-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)

IT 700844-32-2P, 7-(2,4-Dichloro-5-methoxyanilino)thieno[3,2-b]pyridine-6-carbonitrile 700844-33-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-phenylthieno[3,2-b]pyridine-6-carbonitrile 700844-35-5P, 2-Bromo-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-37-7P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]thieno[2,3-b]pyridine-5-carbonitrile 700844-38-8P, 4-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]thieno[2,3-b]pyridine-5-carbonitrile 700844-40-2P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-methylthieno[2,3-b]pyridine-5-carbonitrile 700844-41-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-methylthieno[3,2-b]pyridine-6-carbonitrile 700844-42-4P, 7-[(2,4-Dichlorophenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-43-5P, 7-(2,4-Dichlorophenoxy)thieno[3,2-b]pyridine-6-carbonitrile 700844-44-6P, 7-[(2,4-Dichlorophenyl)thio]thieno[3,2-b]pyridine-6-carbonitrile 700844-45-7P, 7-[(2,4-Dichlorobenzyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-47-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-morpholinyl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-48-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-49-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-(2-hydroxyethyl)piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-50-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(piperidin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-52-6P, 4-[6-Cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]benzamide 700844-53-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(4-methoxyphenyl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile **700844-54-8P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-2-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile

700844-55-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-(dimethylamino)prop-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-56-0P, 2-(Benzo[b]furan-2-yl)-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-58-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-[(morpholin-4-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-60-6P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(morpholin-4-yl)methyl]phenyl]thieno[2,3-b]pyridine-5-carbonitrile 700844-63-9P, 2-[4-(4-Morpholinyl)butyl]-4-[(3,4,5-trimethoxyphenyl)amino]thieno[2,3-b]pyridine-5-carbonitrile **700844-67-3P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-4-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile **700844-68-4P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-3-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-71-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700844-72-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(morpholin-4-yl)methyl]thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700844-73-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-hydroxypiperidin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-74-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-(hydroxymethyl)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-75-3P, 2-Iodo-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-79-7P, 2-[4-(4-Methylpiperazin-1-ylmethyl)phenyl]-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-80-0P, 2-[4-(Morpholin-4-ylmethyl)phenyl]-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-81-1P, 2-[4-(Hydroxymethyl)phenyl]-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-83-3P, 2-Bromo-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile **700844-85-5P**, 7-[(4-Phenoxyphenyl)amino]-2-[(E)-2-(pyridin-4-yl)ethenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-87-7P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-(4-methylpiperazin-1-yl)prop-1-ynyl]thieno[2,3-b]pyridine-5-carbonitrile **700844-88-8P**, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-3-yl)ethynyl]thieno[2,3-b]pyridine-5-carbonitrile 700844-92-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(1E)-3-(4-methylpiperazin-1-yl)-3-oxoprop-1-enyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-93-5P, 2-[3-(4-Methylpiperazin-1-yl)prop-1-ynyl]-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-94-6P, 2-[4-[(4-Methylpiperazin-1-yl)methyl]phenyl]-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-95-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[1-methyl-2-[(4-methylpiperazin-1-yl)methyl]-1H-imidazol-5-yl]thieno[3,2-b]pyridine-6-carbonitrile 700844-96-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-(4-methylpiperazin-1-yl)prop-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-97-9P, 2-[4-[(Dimethylamino)methyl]phenyl]-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-98-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(dimethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-99-1P, N-(6-Cyanothieno[3,2-b]pyridin-7-yl)-N-(2,4-dichloro-5-methoxyphenyl)acetamide 700845-01-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-((E)-2-phenylethenyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-03-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[1-[2-(morpholin-4-yl)ethyl]-1H-pyrazol-4-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-05-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(E)-2-(2H-1,2,3-triazol-

2-yl)ethenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-06-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(5-formyl-2-furyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-07-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-(1,3-dioxolan-2-yl)-2-furyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-08-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]-2-furyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-09-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-ethylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-10-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-(pyrrolidin-1-yl)piperidin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-11-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[[2-(dimethylamino)ethyl](methyl)amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-12-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-(dimethylamino)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-13-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-14-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-[(dimethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-15-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(dimethylamino)methyl]-2-furyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-16-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-(1,3-dioxolan-2-yl)thien-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-17-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(2-formylthien-3-yl)thieno[3,2-b]pyridine-6-carbonitrile 700845-18-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(5-formylthien-2-yl)thieno[3,2-b]pyridine-6-carbonitrile 700845-19-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(dimethylamino)methyl]thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-20-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]thien-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-21-2P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700845-22-3P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[4-[(morpholin-4-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-23-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[2-[(4-methylpiperazin-1-yl)methyl]thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-25-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[[3-(dimethylamino)propyl](methyl)amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-26-7P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[4-(morpholin-4-yl)but-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile **700845-27-8P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[6-[(dimethylamino)methyl]pyridin-2-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-28-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(dimethylamino)methyl]thien-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-29-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[[(pyridin-4-yl)methyl]amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-30-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(1H-pyrrol-3-yl)thieno[3,2-b]pyridine-6-carbonitrile 700845-31-4P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[3-(dimethylamino)prop-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-32-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[(2-methoxyethyl)amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-33-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[[2-(methylthio)ethyl]amino]methyl]phen

yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-34-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-thiomorpholinyl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-35-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(piperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-36-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-(morpholin-4-yl)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-37-0P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-38-1P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[4-[(diethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-39-2P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile **700845-40-5P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[5-[(dimethylamino)methyl]pyridin-2-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-41-6P, 7-[(2,4-Dichlorophenyl)amino]-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700845-42-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-43-8P, 2-[4-[(Butylamino)methyl]phenyl]-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700845-44-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(1-oxido-4-thiomorpholinyl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-45-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(diethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-46-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[(3-hydroxypropyl)amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-47-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(morpholin-4-yl)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-48-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[6-(morpholin-4-yl)pyridin-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-49-4P, 7-[(2,4-Dichloro-5-ethoxyphenyl)amino]-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700845-50-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(1,1-dioxido-4-thiomorpholinyl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-51-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-(pyridin-2-yl)piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-52-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-phenylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-53-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[((2R,5S)-2,5-dimethylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-54-1P, 7-[(2,4-Dichlorophenyl)amino]-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-55-2P, 7-[(2,4-Dichloro-5-ethoxyphenyl)amino]-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-56-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)carbonyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-57-4P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[3-(diethylamino)prop-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-58-5P, 7-[(2,4-Dichlorophenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-59-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-(2-methoxyphenyl)piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-60-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[(3-methylbutyl)amino]methyl]phenyl]thi

eno[3,2-b]pyridine-6-carbonitrile 700845-61-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-(methylsulfonyl)piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-62-1P, 7-[(2,4-Dichloro-5-ethoxyphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-63-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-[(pyridin-2-yl)methyl]piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-64-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[1-[2-(dimethylamino)ethyl]-1H-pyrrol-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-65-4P, 7-[(2,4-Dichlorophenyl)amino]-2-[4-(dimethylamino)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-66-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(1-methyl-1H-imidazol-5-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-67-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[6-[(dimethylamino)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-68-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(1H-pyrazol-4-yl)thieno[3,2-b]pyridine-6-carbonitrile 700845-69-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[1-(2-hydroxyethyl)-1H-pyrazol-4-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-70-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[1-[2-(morpholin-4-yl)ethyl]-1H-pyrazol-4-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-71-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(dimethylamino)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-72-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(diethylamino)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-73-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[2-(dimethylamino)ethyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-74-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[1-(2-hydroxyethyl)-1H-pyrazol-4-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-75-6P, 4-[6-Cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]-N,N-dimethylbenzamide 700845-76-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]-3-furyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-77-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(5-formyl-3-furyl)thieno[3,2-b]pyridine-6-carbonitrile 798574-86-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-3-[4-[(dimethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 798574-87-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-3-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 798574-88-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-3-[4-(morpholin-4-ylmethyl)phenyl]thieno[3,2-b]pyridine-6-carbonitrile
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)

IT 114051-78-4, Lck kinase 139691-76-2, Raf kinase 141349-89-5, Src kinase 146702-84-3, MEK kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibition**; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)

IT 20828-66-4P, 4-(Thiophen-2-yl)butyric acid methyl ester 63873-61-0P, 4-Chlorothieno[2,3-b]pyridine-5-carbonitrile 75782-81-9P, (5-Phenyl-3-thienyl)amine 90690-94-1P,

7-Chlorothieno[3,2-b]pyridine-6-carboxylic acid 700844-07-1P, 7-Oxo-4,7-dihydrothieno[3,2-b]pyridine-6-carbonitrile 700844-08-2P 700844-09-3P, 7-Chlorothieno[3,2-b]pyridine-6-carbonitrile 700844-10-6P, 7-Chlorothieno[3,2-b]pyridine-6-carboxamide 700844-11-7P, Ethyl 2-cyano-3-[(5-phenyl-3-thienyl)amino]-2-propenoate 700844-12-8P, 7-Oxo-2-phenyl-4,7-dihydrothieno[3,2-b]pyridine-6-carbonitrile 700844-13-9P, 2-Bromo-7-chlorothieno[3,2-b]pyridine-6-carbonitrile 700844-15-1P, 2-Bromo-7-hydroxythieno[3,2-b]pyridine-6-carboxylic acid 700844-16-2P, 2-Bromo-7-hydroxythieno[3,2-b]pyridine-6-carboxamide 700844-17-3P, 7-Chloro-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700844-18-4P, 4-Chloro-2-iodothieno[2,3-b]pyridine-5-carbonitrile 700844-19-5P, 4-Chlorothieno[2,3-b]pyridine-5-carboxylic acid 700844-20-8P, 4-Chlorothieno[2,3-b]pyridine-5-carboxamide 700844-21-9P, 4-Chloro-2-methylthieno[2,3-b]pyridine-5-carbonitrile 700844-22-0P, 7-Chloro-2-methylthieno[3,2-b]pyridine-6-carbonitrile 700844-23-1P, 4-(5-Nitrothiophen-2-yl)butyric acid methyl ester 700844-24-2P, 4-(5-Aminothiophen-2-yl)butyric acid methyl ester 700844-25-3P, 4-(4-Chloro-5-cyanothieno[2,3-b]pyridin-2-yl)butyric acid methyl ester 700844-26-4P, Methyl 4-(5-cyano-4-oxo-4,7-dihydrothieno[2,3-b]pyridin-2-yl)butanoate 700844-27-5P, 7-Chloro-2-formylthieno[3,2-b]pyridine-6-carbonitrile 700844-28-6P, tert-Butyl (2E)-3-(7-chloro-6-cyanothieno[3,2-b]pyridin-2-yl)prop-2-enoate 700844-29-7P, 7-Chloro-2-[4-(dimethylamino)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-30-0P, 7-Chloro-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700844-31-1P, 7-Chloro-2-[4-[(dimethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-34-4P, 7-Chloro-2-phenylthieno[3,2-b]pyridine-6-carbonitrile 798574-82-0P, 3-Bromo-7-chlorothieno[3,2-b]pyridine-6-carbonitrile 798574-83-1P, 3,7-Dibromothieno[3,2-b]pyridine-6-carbonitrile
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)

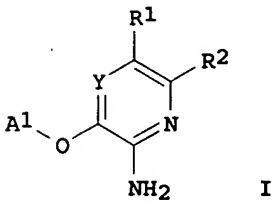
IT 80449-02-1 372092-80-3, Protein kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)

IT 94-05-3, Ethyl 2-(ethoxymethylene)-2-cyanoacetate 95-00-1, 2,4-Dichlorobenzylamine 100-43-6, 4-Vinylpyridine 103-76-4, 1-Piperazineethanol 109-01-3, N-Methylpiperazine 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 120-83-2, 2,4-Dichlorophenol 139-59-3, 4-Phenoxyaniline 288-35-7, 2H-1,2,3-Triazole 554-00-7, 2,4-Dichloroaniline 768-60-5, 1-Ethynyl-4-methoxybenzene 1066-54-2, (Trimethylsilyl)acetylene 1122-41-4, 2,4-Dichlorobenzenethiol 1945-84-2, 2-Ethynylpyridine 2510-23-8, 3-Ethynylpyridine 3647-69-6, 4-(2-Chloroethyl)morpholine hydrochloride 5382-16-1, 4-Hydroxypiperidine 6783-05-7 7223-38-3, 1-Dimethylamino-2-propyne 14047-29-1, 4-Carboxyphenylboronic acid 15854-87-2, 4-Iodopyridine 22288-78-4, Methyl 3-amino-2-thiophenecarboxylate 24313-88-0, 3,4,5-Trimethoxyaniline 28611-39-4, [4-(Dimethylamino)phenyl]boronic acid 35000-38-5, (tert-Butoxycarbonylmethylene)triphenylphosphorane 45813-02-3, 1-Methyl-4-prop-2-ynylpiperazine 59713-58-5, Ethyl 4-chlorothieno[2,3-b]pyridine-5-carboxylate 83179-01-5, Ethyl 7-chlorothieno[3,2-b]pyridine-6-carboxylate 87199-16-4,

3-Formylphenylboronic acid 87199-17-5, 4-Formylphenylboronic acid 98437-24-2, 2-Benzo[b]furanboronic acid 98446-49-2, 2,4-Dichloro-5-methoxyaniline 100063-22-7, Methyl 3-amino-5-phenylthiophene-2-carboxylate 133303-88-5, 3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)sulfanyl]aniline 364793-90-8, Tributyl[5-([1,3]dioxolan-2-yl)thiophen-3-yl]stannane 364794-89-8, 1-Methyl-5-(tributylstannyl)-1H-imidazole-2-carboxaldehyde 700844-14-0, Ethyl 2-bromo-7-hydroxythieno[3,2-b]pyridine-6-carboxylate 700844-64-0, 2-(4-Bromobutyl)-4-[(3,4,5-trimethoxyphenyl)amino]thieno[2,3-b]pyridine-5-carbonitrile 700844-76-4, 4-Chloro-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700844-78-6, 2-Iodo-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-5-carbonitrile 700844-84-4, 2-Bromo-4-chlorothieno[3,2-b]pyridine-6-carbonitrile 700845-00-7, 7-[(2,4-Dichloro-5-methoxyanilino)amino]thieno[3,2-b]pyridine-6-carbonitrile 700845-02-9, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-iodothieno[3,2-b]pyridine-5-carbonitrile 700845-04-1, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(1H-pyrazol-4-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thieno[3,2-b]pyridine carbonitriles as Src kinase **inhibitors** for treatment of cancer, autoimmune disease, and related conditions)

L138 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:740294 Document No. 141:260769 Preparation of aminoheteroaryl compounds as protein kinase inhibitors. Cui, Jingjong Jean (Sugen, Inc., USA; Bhumralkar, Dilip; Botrous, Iriny; Chu Ji Yu; Funk, Lee A; Hanau, Cathleen Elizabeth; Harris, G. Davis, Jr.; Jia, Lei; et al.). PCT Int. Appl. WO 2004076412 A2 20040910, 312 pp. DESIGNATED STATES: W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, ML, MR, NE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-US5495 20040226. PRIORITY: US 2003-2003/PV44958U 20030226; US 2004-2004/PV540229 20040129.

GI



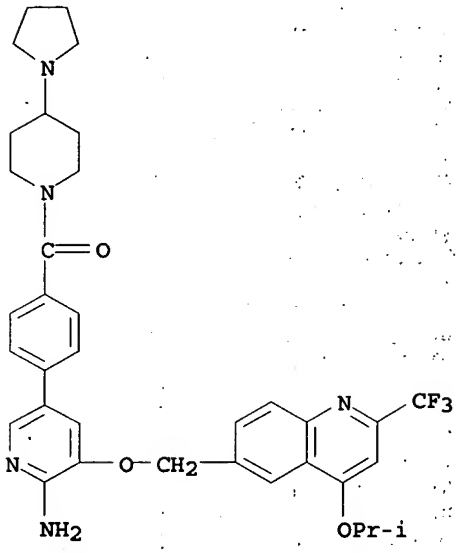
I

AB The title aminopyridines and aminopyrazines [I; Y = N, CR11; R1 = aryl, heteroaryl, cycloalkyl, etc.; R2 = H, halo, alkyl, cycloalkyl, etc.; A1 = (CR9R10)nA2 (with provisos); R9, R10 = H, halo, alkyl, cycloalkyl, etc.; n = 0-4; A2 = aryl, heteroaryl,

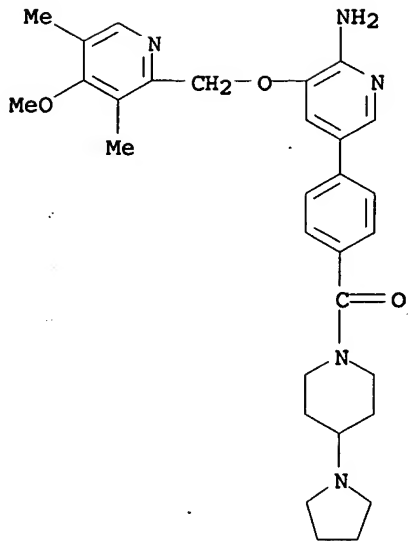
cycloalkyl, heterocyclic; R11 = halo, alkyl, alkoxy, etc.] which have activity as protein kinase inhibitors, including as inhibitors of c-MET (IC50 values given), were prepared E.g., a multi-step synthesis of 3-(3-methoxybenzyloxy)-5-phenylpyridin-2-amine, was given.

IT **756518-34-0P 756518-78-2P 756520-00-0P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted aminopyridines and aminopyrazines as protein kinase inhibitors)

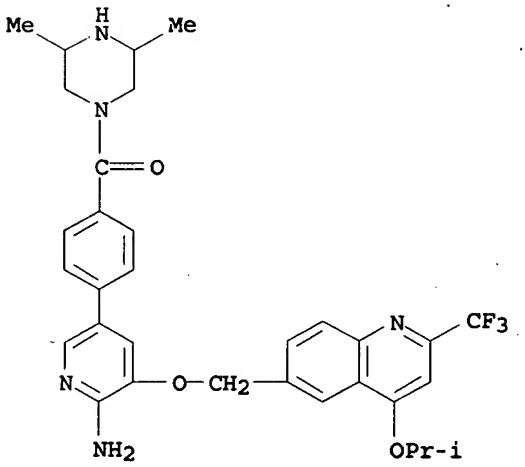
RN 756518-34-0 HCAPLUS
CN Piperidine, 1-[4-[6-amino-5-[[4-(1-methylethoxy)-2-(trifluoromethyl)-6-quinolinyl]methoxy]-3-pyridinyl]benzoyl]-4-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



RN 756518-78-2 HCAPLUS
CN Piperidine, 1-[4-[6-amino-5-[(4-methoxy-3,5-dimethyl-2-pyridinyl)methoxy]-3-pyridinyl]benzoyl]-4-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



RN 756520-00-0 HCAPLUS
CN Piperazine, 1-[4-[6-amino-5-[[4-(1-methylethoxy)-2-(trifluoromethyl)-6-quinolinyl]methoxy]-3-pyridinyl]benzoyl]-3,5-dimethyl- (9CI) (CA INDEX NAME)



IC ICM C07D
CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1
IT 137632-03-2, c-Met **tyrosine kinase**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of substituted aminopyridines and aminopyrazines as protein kinase inhibitors)
IT 756517-58-5P 756517-59-6P 756517-60-9P 756517-61-0P
756517-62-1P 756517-63-2P 756517-64-3P 756517-65-4P
756517-66-5P 756517-67-6P 756517-68-7P 756517-69-8P
756517-70-1P 756517-71-2P 756517-72-3P 756517-73-4P
756517-74-5P 756517-75-6P 756517-76-7P 756517-77-8P

756517-78-9P 756517-79-0P 756517-80-3P 756517-81-4P
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756517-86-9P 756517-87-0P 756517-88-1P 756517-89-2P
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756517-95-0P 756517-96-1P 756517-97-2P 756517-98-3P
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756519-81-0P 756519-82-1P 756519-83-2P 756519-84-3P
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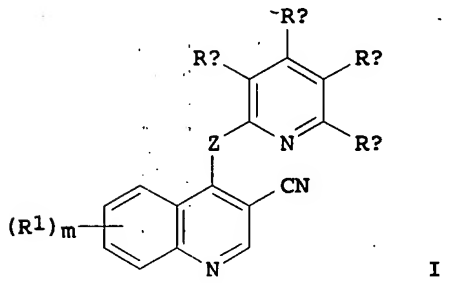
756519-93-4P 756519-95-6P 756519-97-8P 756519-98-9P
756519-99-0P **756520-00-0P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted aminopyridines and aminopyrazines as protein kinase inhibitors)

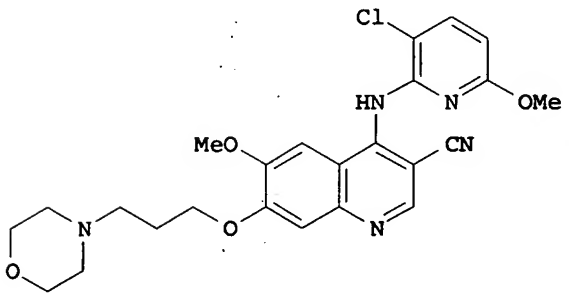
L138 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:681574 Document No. 141:207069 Preparation of 3-cyanoquinoline ,

non-receptor **tyrosine kinase inhibitors** as antitumor agents. Barlaam, Bernard (Astrazeneca AB, Swed.; Astrazeneca UK Limited). PCT Int. Appl. WO 2004069250 A1 20040819, 71 pp. DESIGNATED STATES: W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, ML, MR, NE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-GB396 20040130. PRIORITY: EP 2003-290261 20030203.

GI



I



II

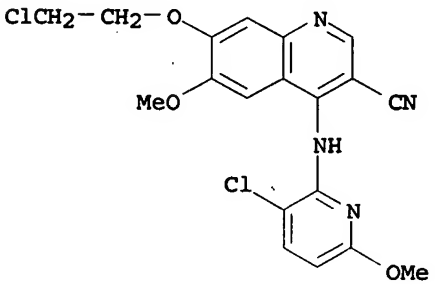
AB Title quinolinenitriles I [wherein Z = O, S, SO, SO2, NR2, CR2R3; R1 = independently halo, CF3, CN, NC, NO2, OH, SH, NH2, CHO, CO2H, carbamoyl, sulfamoyl, alkyl, alkenyl, alkynyl, etc.; R2, R3 = independently H, alkyl; m = 1-3; Ra = H, halo; Rb, Rc = independently H, halo, alkyl, alkoxy; Rd = alkoxy; or RaRb, RbRc, or RcRd = alkylenedioxy; or pharmaceutically acceptable salts thereof] were prepared as non-receptor **tyrosine kinase inhibitors**. For example, 2-amino-3-chloro-6-methoxypyridine (preparation given) was coupled with 4-chloro-3-cyano-6-methoxy-7-(3-morpholinopropoxy)quinoline using sodium hexamethyldisilazane in DMF to give II. The latter **inhibited** the phosphorylation of a tyrosine containing polypeptide substrate by human recombinant c-Src kinase (IC50 = 0.005 μM), **suppressed** the proliferation of mouse 3T3

fibroblast cells stably-transfected with an activating mutant of human c-Src (IC50 = 0.2 μM), and **inhibited** the migration of the human tumor cell line A549 (IC50 = 0.005 μM). In addition, no physiol. unacceptable toxicity was observed at the ED for compds. tested in an in vivo A549 xenograft growth assay using athymic nude mice. Thus, I and pharmaceutical compns. containing them are useful as anti-invasive agents in the containment and/or treatment of solid tumor disease.

IT **742070-75-3P**, 7-(2-Chloroethoxy)-4-[(3-chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxyquinoline
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(antitumor agent; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

RN 742070-75-3 HCAPLUS

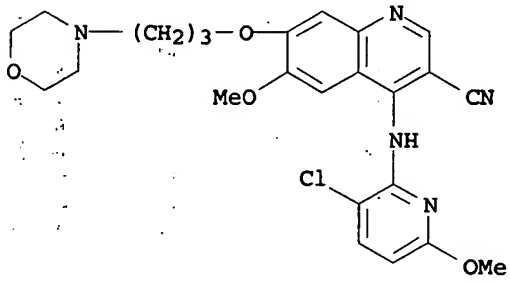
CN 3-Quinolinecarbonitrile, 7-(2-chloroethoxy)-4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy- (9CI) (CA INDEX NAME)



IT **742070-72-0P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(morpholino)propoxy]quinoline **742070-76-4P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-7-(3-chloropropoxy)-3-cyano-6-methoxyquinoline **742070-77-5P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(pyrrolidin-1-yl)ethoxy]quinoline **742070-78-6P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(piperidino)ethoxy]quinoline **742070-79-7P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(morpholino)ethoxy]quinoline **742070-80-0P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(4-methylpiperazin-1-yl)ethoxy]quinoline **742070-81-1P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-[4-(prop-2-ynyl)piperazin-1-yl]ethoxy]quinoline **742070-82-2P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(4-acetylpiperazin-1-yl)ethoxy]quinoline **742070-83-3P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinoline **742070-84-4P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(piperidino)propoxy]quinoline **742070-85-5P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]quinoline **742070-86-6P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-[4-(prop-2-ynyl)piperazin-1-yl]propoxy]quinoline **742070-87-7P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(4-acetylpiperazin-1-yl)propoxy]quinoline
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)
(antitumor agent; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

RN 742070-72-0 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy-7-[3-(4-morpholinyl)propoxy]- (9CI) (CA INDEX NAME)



RN 742070-76-4 HCAPLUS
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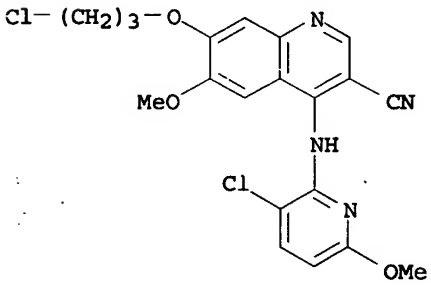

RN 742070-77-5 HCAPLUS
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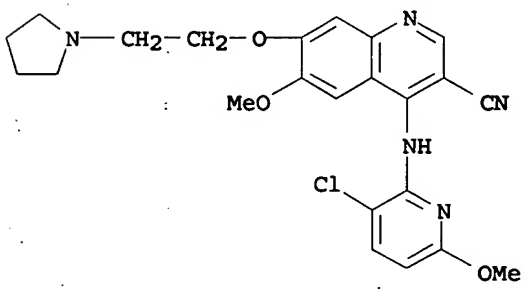
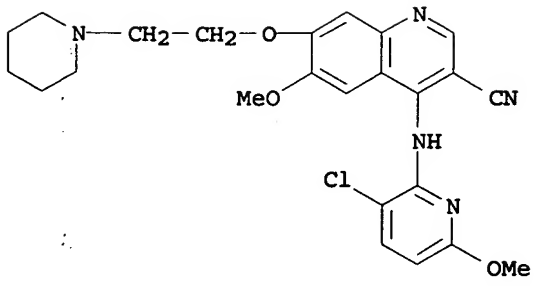
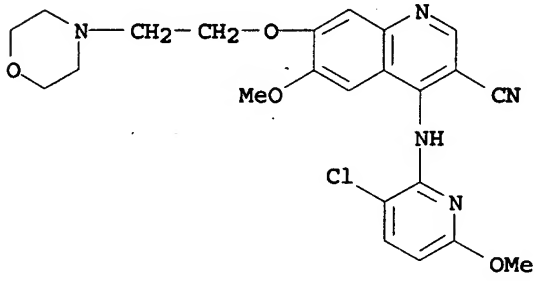


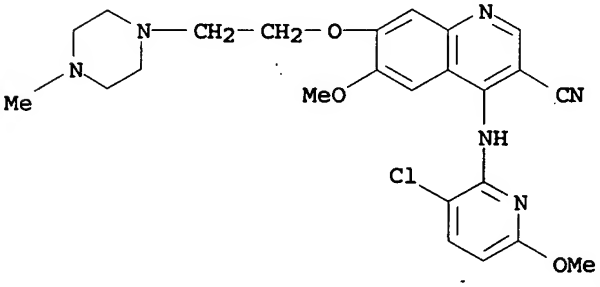
RN 742070-78-6 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy-7-[2-(1-piperidinyl)ethoxy]- (9CI) (CA INDEX NAME)



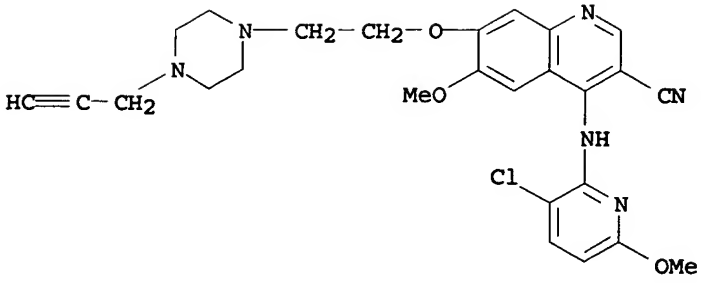
RN 742070-79-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy-7-[2-(4-morpholinyl)ethoxy]- (9CI) (CA INDEX NAME)



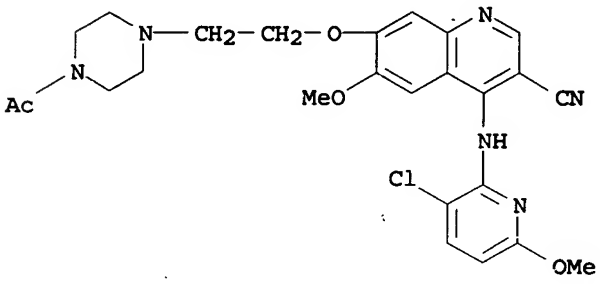
RN 742070-80-0 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy-7-[2-(4-methyl-1-piperazinyl)ethoxy]- (9CI) (CA INDEX NAME)



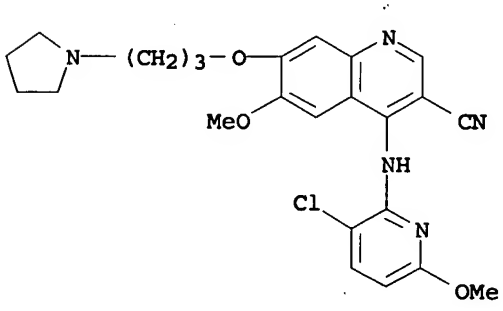
RN 742070-81-1 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy-7-[2-[4-(2-propynyl)-1-piperazinyl]ethoxy]- (9CI) (CA INDEX NAME)



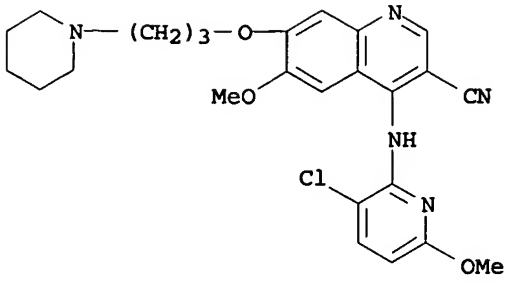
RN 742070-82-2 HCAPLUS
CN Piperazine, 1-acetyl-4-[2-[[4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-3-cyano-6-methoxy-7-quinolinyl]oxy]ethyl]- (9CI) (CA INDEX NAME)



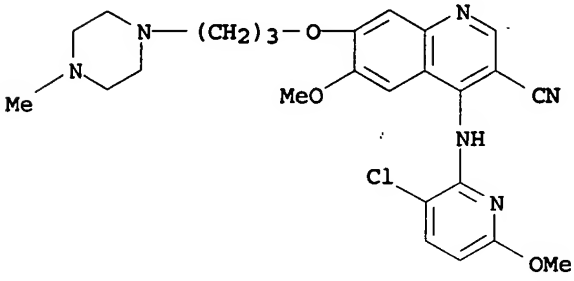
RN 742070-83-3 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy-7-[3-(1-pyrrolidinyl)propoxy]- (9CI) (CA INDEX NAME)



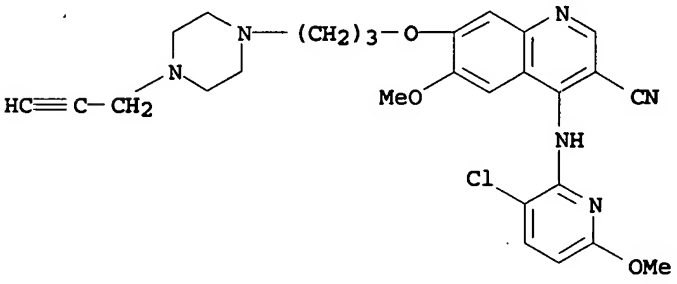
RN 742070-84-4 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy-7-[3-(1-piperidinyl)propoxy]- (9CI) (CA INDEX NAME)



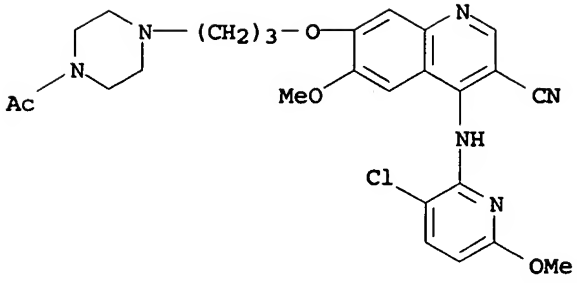
RN 742070-85-5 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy-7-[3-(4-methyl-1-piperazinyl)propoxy]- (9CI) (CA INDEX NAME)



RN 742070-86-6 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-6-methoxy-7-[3-[4-(2-propynyl)-1-piperazinyl]propoxy]- (9CI) (CA INDEX NAME)



RN 742070-87-7 HCAPLUS
CN Piperazine, 1-acetyl-4-[3-[[4-[(3-chloro-6-methoxy-2-pyridinyl)amino]-3-cyano-6-methoxy-7-quinolinyl]oxy]propyl]- (9CI) (CA INDEX NAME)



IC ICM A61K031-4709
ICS C07D401-12; A61P035-00
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 63
ST cyanoquinoline prepn **tyrosine kinase inhibitor** antitumor agent; quinolinenitrile prepn Src kinase **inhibitor** anticancer agent
IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(c-src; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)
IT Antitumor agents
Cell migration
Drug delivery systems
Human
Neoplasm
Phosphorylation, biological
(preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)
IT **742070-75-3P**, 7-(2-Chloroethoxy)-4-[(3-chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxyquinoline
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(antitumor agent; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)
IT **742070-72-0P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(morpholino)propoxy]quinoline **742070-76-4P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-7-(3-chloropropoxy)-3-cyano-6-methoxyquinoline **742070-77-5P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(pyrrolidin-1-yl)ethoxy]quinoline **742070-78-6P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(piperidino)ethoxy]quinoline **742070-79-7P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(morpholino)ethoxy]quinoline **742070-80-0P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(4-methylpiperazin-1-yl)ethoxy]quinoline **742070-81-1P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-[4-(prop-2-ynyl)piperazin-1-yl]ethoxy]quinoline **742070-82-2P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[2-(4-acetylpiperazin-1-yl)ethoxy]quinoline **742070-83-3P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinoline **742070-84-4P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(piperidino)propoxy]quinoline **742070-85-5P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]quinoline

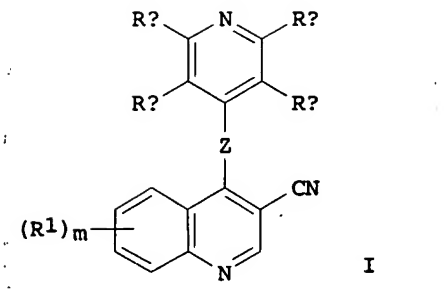
742070-86-6P, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-[4-(prop-2-ynyl)piperazin-1-yl]propoxy]quinoline **742070-87-7P**, 4-[(3-Chloro-6-methoxypyridin-2-yl)amino]-3-cyano-6-methoxy-7-[3-(4-acetylpiperazin-1-yl)propoxy]quinoline
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antitumor agent; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

IT 52070-67-4P, 1-(Prop-2-ynyl)piperazine 199538-99-3P, tert-Butyl 4-(prop-2-ynyl)piperazine-1-carboxylate 742070-73-1P, 2-Amino-3-chloro-6-methoxypyridine 742070-74-2P, 6-Amino-3-chloro-2-methoxypyridine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

IT 106-96-7, Propargyl bromide 123-75-1, Pyrrolidine, reactions 17920-35-3, 2-Amino-6-methoxypyridine 57260-71-6, 1-tert-Butoxycarbonylpiperazine 214470-68-5, 4-Chloro-7-(3-chloropropoxy)-3-cyano-6-methoxyquinoline 214470-72-1, 4-Chloro-7-(2-chloroethoxy)-3-cyano-6-methoxyquinoline 214487-30-6, 4-Chloro-3-cyano-6-methoxy-7-[3-(morpholino)propoxy]quinoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

L138 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:681573 Document No. 141:207068 Preparation of 3-cyanoquinoline non-receptor **tyrosine kinase** **inhibitors** as antitumor agents. Barlaam, Bernard (Astrazeneca AB, Swed.; Astrazeneca UK Limited). PCT Int. Appl. WO 2004069249 A1 20040819, 78 pp. DESIGNATED STATES: W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, ML, MR, NE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-GB367 20040130. PRIORITY: EP 2003-290260 20030203.

GI



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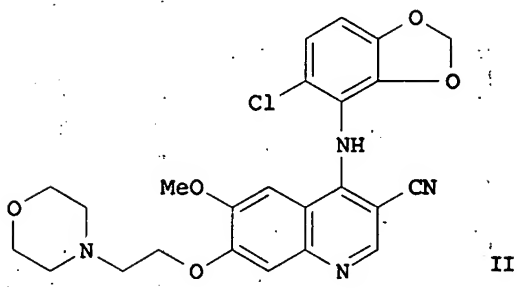


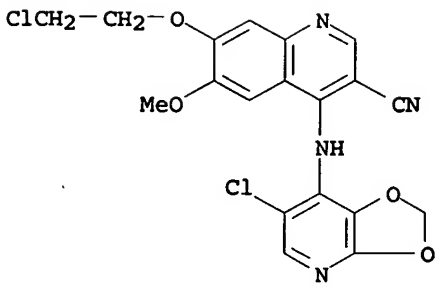
II

AB Title quinolinenitriles I [wherein Z = O, S, SO, SO2, NR2, CR2R3; R1 = independently halo, CF3, CN, NC, NO2, OH, SH, NH2, CHO, CO2H, carbamoyl, sulfamoyl, alkyl, alkenyl, alkynyl, etc.; R2, R3 = independently H, alkyl; m = 1-3; Ra = H, halo; Rb, Rd = independently H, halo, alkyl, alkoxy; Rc = alkoxy; or RcRd = alkylenedioxy; or pharmaceutically acceptable salts thereof] were prepared as non-receptor **tyrosine kinase inhibitors**. For example, reaction of 7-(2-chloroethoxy)-4-(5-chloro-2,3-methylenedioxypyridin-4-ylamino)-3-cyano-6-methoxyquinoline with morpholine using KI in DMA gave II. The latter **inhibited** the phosphorylation of a tyrosine containing polypeptide substrate by human recombinant c-Src kinase (IC50 = 0.01 μM), **suppressed** the proliferation of mouse 3T3 fibroblast cells stably-transfected with an activating mutant of human c-Src (IC50 = 0.2 μM), and **inhibited** the migration of the human tumor cell line A549 (IC50 = 0.7 μM). In addition, no physiol. unacceptable toxicity was observed at the ED for compds. tested in an in vivo A549 xenograft growth assay using athymic nude mice. Thus, I and pharmaceutical compns. containing them are useful as anti-invasive agents in the containment and/or treatment of solid tumor disease.

IT **742072-83-9P**, 7-(2-Chloroethoxy)-4-[(5-chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxyquinoline
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(antitumor agent; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

RN 742072-83-9 HCAPLUS

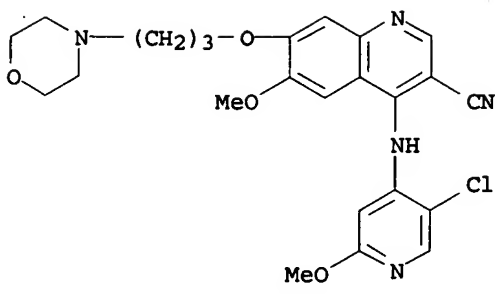
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-7-(2-chloroethoxy)-6-methoxy- (9CI) (CA INDEX NAME)



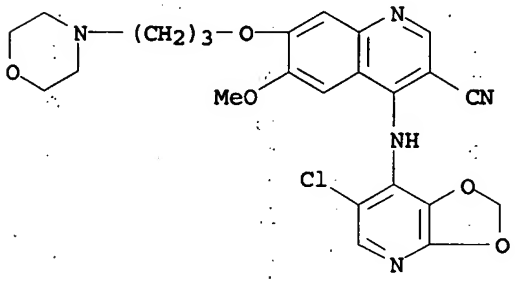
IT **742072-77-1P**, 4-[(5-Chloro-2-methoxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(morpholino)propoxy]quinoline **742072-81-7P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(morpholino)propoxy]quinoline **742072-82-8P**, 3-Cyano-6-methoxy-4-[(2,3-methylenedioxypyridin-4-yl)amino]-7-[3-(morpholino)propoxy]quinoline **742072-85-1P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-7-(3-chloropropoxy)-3-cyano-6-methoxyquinoline **742072-87-3P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(pyrrolidin-1-yl)ethoxy]quinoline **742072-89-5P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(piperidino)ethoxy]quinoline **742072-91-9P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(morpholino)ethoxy]quinoline **742072-93-1P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(4-methylpiperazin-1-yl)ethoxy]quinoline **742072-95-3P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-[4-(prop-2-ynyl)piperazin-1-yl]ethoxy]quinoline **742072-96-4P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(4-acetylpiperazin-1-yl)ethoxy]quinoline **742072-98-6P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinoline **742073-00-3P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(piperidino)propoxy]quinoline **742073-02-5P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(4-hydroxypiperidin-1-yl)propoxy]quinoline **742073-04-7P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]quinoline **742073-06-9P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-[4-(prop-2-ynyl)piperazin-1-yl]propoxy]quinoline **742073-08-1P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(4-acetylpiperazin-1-yl)propoxy]quinoline
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antitumor agent; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

RN 742072-77-1 HCAPLUS

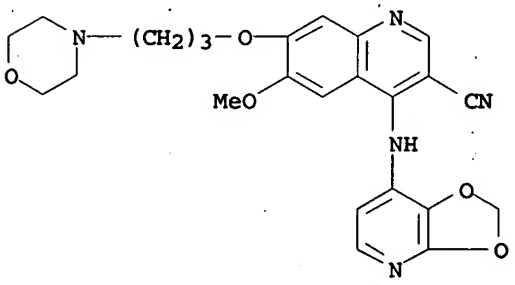
CN 3-Quinolinecarbonitrile, 4-[(5-chloro-2-methoxy-4-pyridinyl)amino]-6-methoxy-7-[3-(4-morpholinyl)propoxy]- (9CI) (CA INDEX NAME)



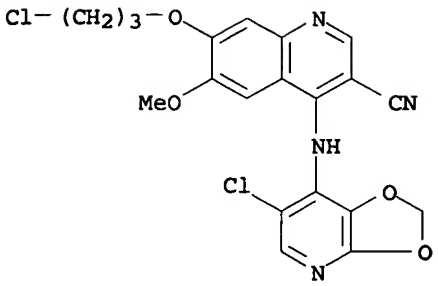
RN 742072-81-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[3-(4-morpholinyl)propoxy]- (9CI) (CA INDEX NAME)



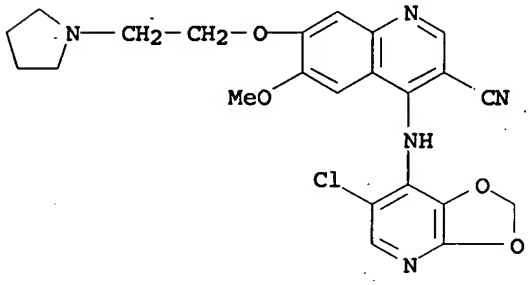
RN 742072-82-8 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-(1,3-dioxolo[4,5-b]pyridin-7-ylamino)-6-methoxy-7-[3-(4-morpholinyl)propoxy]- (9CI) (CA INDEX NAME)



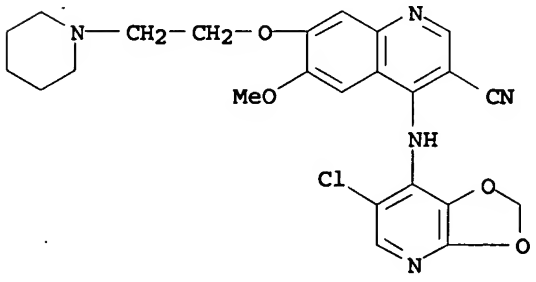
RN 742072-85-1 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-7-(3-chloropropoxy)-6-methoxy- (9CI) (CA INDEX NAME)



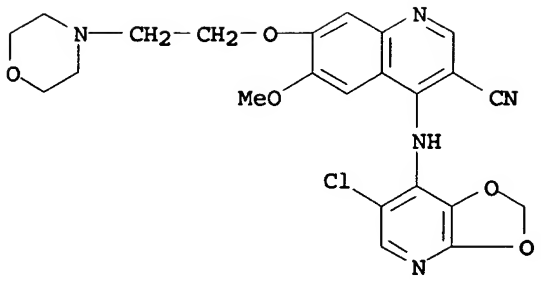
RN 742072-87-3 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[2-(1-pyrrolidinyl)ethoxy]- (9CI) (CA INDEX NAME)



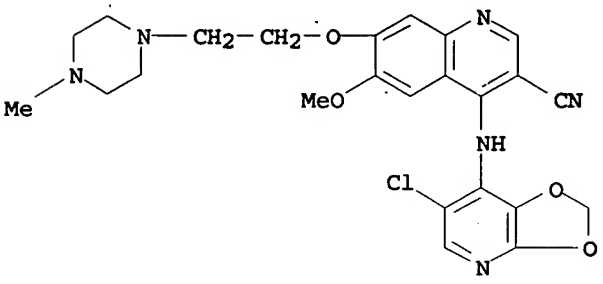
RN 742072-89-5 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[2-(1-piperidinyl)ethoxy]- (9CI) (CA INDEX NAME)



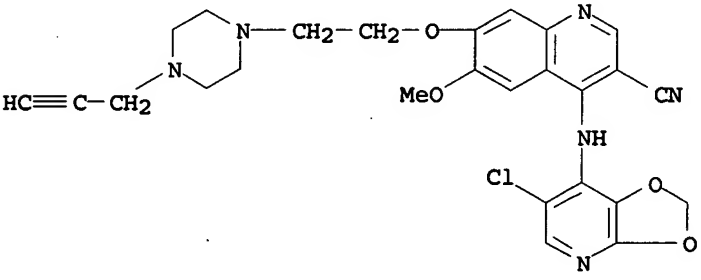
RN 742072-91-9 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[2-(4-morpholinyl)ethoxy]- (9CI) (CA INDEX NAME)



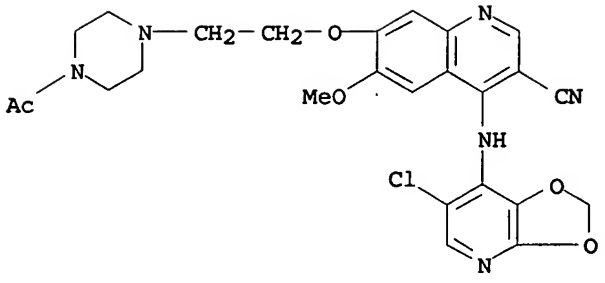
RN 742072-93-1 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[2-(4-methyl-1-piperazinyl)ethoxy]- (9CI) (CA INDEX NAME)



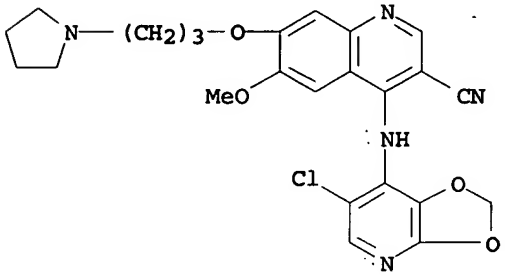
RN 742072-95-3 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[2-[4-(2-propynyl)-1-piperazinyl]ethoxy]- (9CI) (CA INDEX NAME)



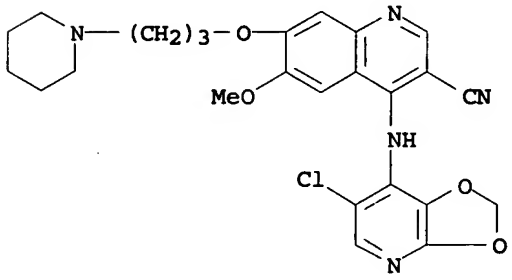
RN 742072-96-4 HCAPLUS
CN Piperazine, 1-acetyl-4-[2-[[4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-3-cyano-6-methoxy-7-quinolinyl]oxy]ethyl]- (9CI) (CA INDEX NAME)



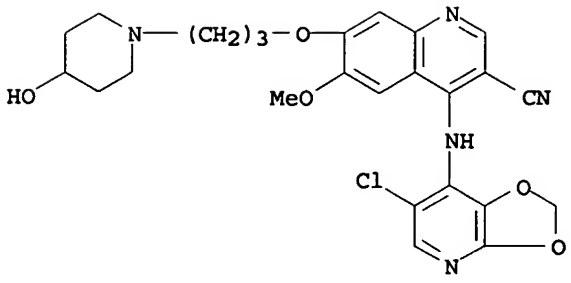
RN 742072-98-6 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[3-(1-pyrrolidinyl)propoxy]- (9CI) (CA INDEX NAME)



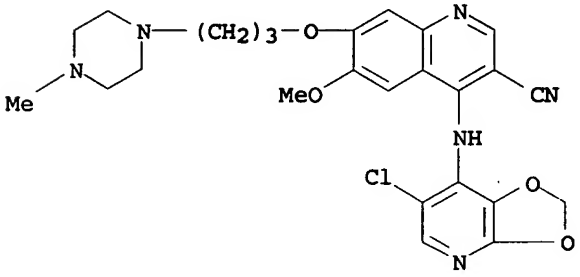
RN 742073-00-3 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[3-(1-piperidinyl)propoxy]- (9CI) (CA INDEX NAME)



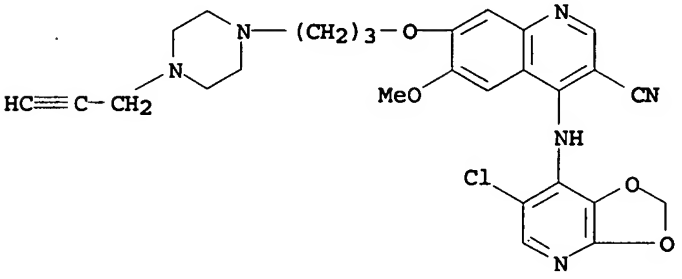
RN 742073-02-5 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-7-[3-(4-hydroxy-1-piperidinyl)propoxy]-6-methoxy- (9CI) (CA INDEX NAME)



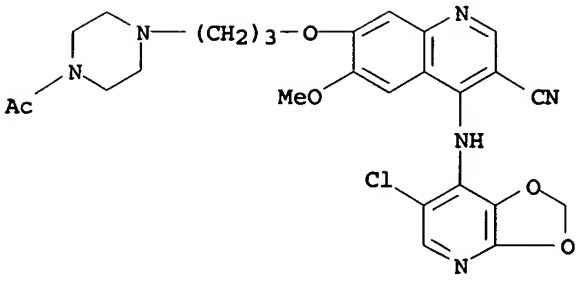
RN 742073-04-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[3-(4-methyl-1-piperazinyl)propoxy]- (9CI) (CA INDEX NAME)



RN 742073-06-9 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-6-methoxy-7-[3-[4-(2-propynyl)-1-piperazinyl]propoxy]- (9CI) (CA INDEX NAME)



RN 742073-08-1 HCAPLUS
CN Piperazine, 1-acetyl-4-[3-[[4-[(6-chloro-1,3-dioxolo[4,5-b]pyridin-7-yl)amino]-3-cyano-6-methoxy-7-quinolinyl]oxy]propyl]- (9CI) (CA INDEX NAME)



IC ICM A61K031-4709
ICS C07D401-12; C07D491-04; A61K031-4355; A61P035-00
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 63
ST cyanoquinoline prepn **tyrosine kinase inhibitor** antitumor agent; quinolinenitrile prepn Src kinase **inhibitor** anticancer agent
IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(c-src; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)
IT Antitumor agents
Cell migration
Drug delivery systems
Human
Neoplasm
Phosphorylation, biological
(preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)
IT **742072-83-9P**, 7-(2-Chloroethoxy)-4-[(5-chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxyquinoline
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(antitumor agent; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)
IT **742072-77-1P**, 4-[(5-Chloro-2-methoxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(morpholino)propoxy]quinoline **742072-81-7P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(morpholino)propoxy]quinoline **742072-82-8P**, 3-Cyano-6-methoxy-4-[(2,3-methylenedioxypyridin-4-yl)amino]-7-[3-(morpholino)propoxy]quinoline **742072-85-1P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-7-(3-chloropropoxy)-3-cyano-6-methoxyquinoline **742072-87-3P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(pyrrolidin-1-yl)ethoxy]quinoline **742072-89-5P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(piperidino)ethoxy]quinoline **742072-91-9P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(morpholino)ethoxy]quinoline **742072-93-1P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(4-methylpiperazin-1-yl)ethoxy]quinoline **742072-95-3P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-[4-(prop-2-ynyl)piperazin-1-yl]ethoxy]quinoline **742072-96-4P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[2-(4-acetylpiperazin-1-yl)ethoxy]quinoline

742072-98-6P, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(pyrrolidin-1-yl)propoxy]quinoline **742073-00-3P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(piperidino)propoxy]quinoline **742073-02-5P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(4-hydroxypiperidin-1-yl)propoxy]quinoline **742073-04-7P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(4-methylpiperazin-1-yl)propoxy]quinoline **742073-06-9P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-[4-(prop-2-ynyl)piperazin-1-yl]propoxy]quinoline **742073-08-1P**, 4-[(5-Chloro-2,3-methylenedioxypyridin-4-yl)amino]-3-cyano-6-methoxy-7-[3-(4-acetylpiperazin-1-yl)propoxy]quinoline
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antitumor agent; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

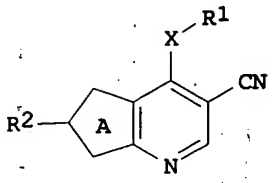
IT 52070-67-4P, 1-(Prop-2-ynyl)piperazine 72138-73-9P, 2,3-Methylenedioxypyridine 199538-99-3P, tert-Butyl 4-(prop-2-ynyl)piperazine-1-carboxylate 692057-01-5P, 4-Amino-5-chloro-2,3-methylenedioxypyridine 692057-07-1P, 5-Chloro-2,3-methylenedioxypyridine 692057-13-9P, 5-Chloro-2,3-methylenedioxypyridine-4-carboxylic acid 692057-18-4P, tert-Butyl (5-chloro-2,3-methylenedioxypyridin-4-yl)carbamate 692059-95-3P, 2,3-Methylenedioxypyridine-4-carboxylic acid 692060-00-7P, tert-Butyl (2,3-methylenedioxypyridin-4-yl)carbamate 692061-13-5P, 4-Amino-2,3-methylenedioxypyridine 719305-30-3P, 4-Amino-5-chloro-2-methoxypyridine 719305-31-4P, 5-Chloro-2-methoxypyridine N-oxide 719305-32-5P, 5-Chloro-2-methoxy-4-nitropyridine 742072-78-2P, 5-Chloro-2-methoxy-4-nitropyridine N-oxide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

IT 106-96-7, Propargyl bromide 123-75-1, Pyrrolidine, reactions 5382-16-1, 4-Hydroxypiperidine 13473-01-3, 5-Chloro-2-methoxypyridine 16867-04-2, 2,3-Dihydroxypyridine 53233-89-9, 5-Chloro-2,3-dihydroxypyridine 57260-71-6, 1-tert-Butoxycarbonylpiperazine 214470-68-5, 4-Chloro-7-(3-chloropropoxy)-3-cyano-6-methoxyquinoline 214470-72-1, 4-Chloro-7-(2-chloroethoxy)-3-cyano-6-methoxyquinoline 214487-30-6, 4-Chloro-3-cyano-6-methoxy-7-[3-(morpholino)propoxy]quinoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of quinolinenitrile c-Src kinase **inhibitors** as antitumor agents)

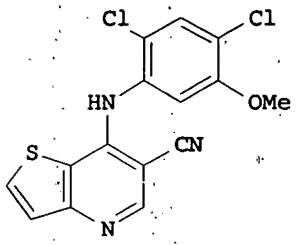
L138 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:467898 Document No. 141:23514 Preparation of thieno[3,2-b]pyridine-6-carbonitriles and thieno[2,3-b]pyridine-5-carbonitriles as protein kinase, in particular protein **tyrosine kinase, inhibitors.**
Boschelli, Diane Harris; Zhang, Nan; Barrios Sosa, Ana Carolina; Durutlic, Haris; Wu, Biqi (Wyeth, John, and Brother Ltd., USA).
PCT Int. Appl. WO 2004048386 A2 20040610, 188 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,

KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-US36206 20031114. PRIORITY: US 2002-2002/PV428862 20021125.

GI



I



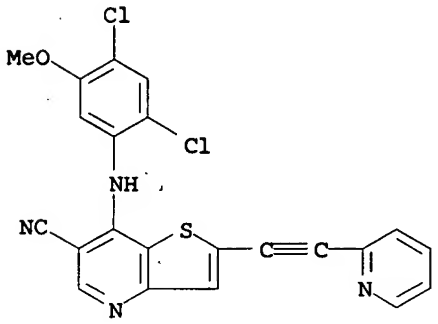
II

AB Title compds. I [wherein X = NH and derivs., O, S(O)m, NHCH2; m = 0-2; R1 = (un)substituted Ph; R2 = H, CHO, F, Cl, Br, I, R3, C(:O)XR3; R3 = (un)asubstituted alkyl, cis-alkenyl, trans-alkenyl, alkynyl, hetero/aryl; A = thiophene ring giving a [3,2-b] or [2,3-b] fusion with the pyridine ring; their S-oxides, S-dioxides, and pharmaceutically acceptable salts] were prepared as protein kinase, in particular protein **tyrosine kinase, inhibitors.** Four biol. assays are given. For example, I was prepared by amination of 7-chlorothieno[3,2-b]pyridine-6-carbonitrile (preparation given) with 2,4-dichloro-5-methoxyaniline in THF in the presence of NaH at reflux. Selected I displayed IC50 values in the range of 7.3-58 nM for the **inhibition** of human Src kinase. Thus, I are useful in the treatment of neoplasm, stroke, osteoporosis, polycystic kidney disease, autoimmune disease, rheumatoid arthritis, and transplant rejection.

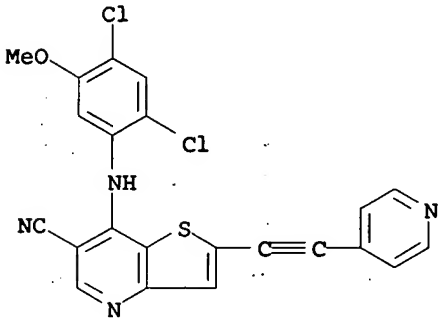
IT **700844-54-8P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-2-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile
700844-67-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-4-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile
700844-68-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-3-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile
700844-85-5P, 7-[(4-Phenoxyphenyl)amino]-2-[(E)-2-(pyridin-4-yl)ethenyl]thieno[3,2-b]pyridine-6-carbonitrile
700844-88-8P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-3-yl)ethynyl]thieno[2,3-b]pyridine-5-carbonitrile
700845-27-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-

[[6-[(dimethylamino)methyl]pyridin-2-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile **700845-40-5P**,
7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[5-[(dimethylamino)methyl]pyridin-2-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

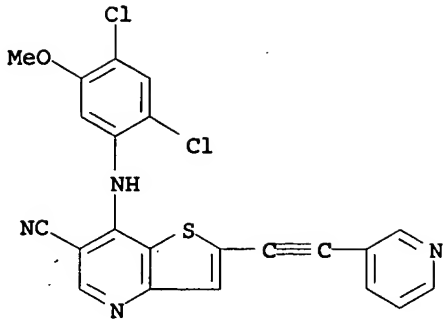
RN 700844-54-8 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-(2-pyridinylethynyl)- (9CI) (CA INDEX NAME)



RN 700844-67-3 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-(4-pyridinylethynyl)- (9CI) (CA INDEX NAME)

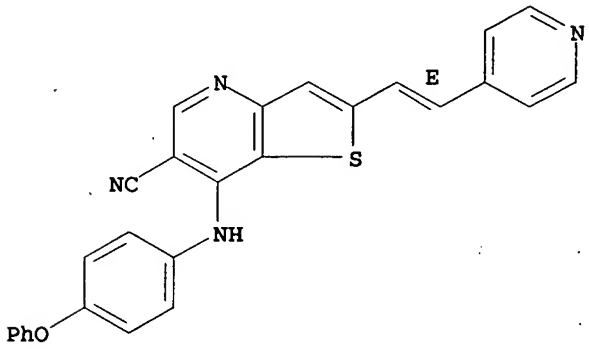


RN 700844-68-4 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-(3-pyridinylethynyl)- (9CI) (CA INDEX NAME)

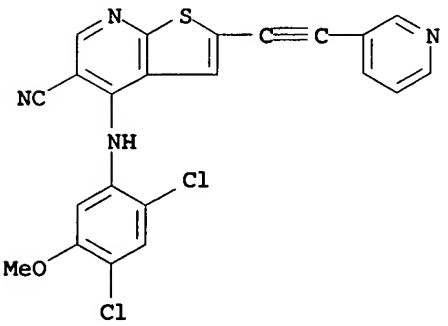


RN 700844-85-5 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(4-phenoxyphenyl)amino]-2-[(1E)-2-(4-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

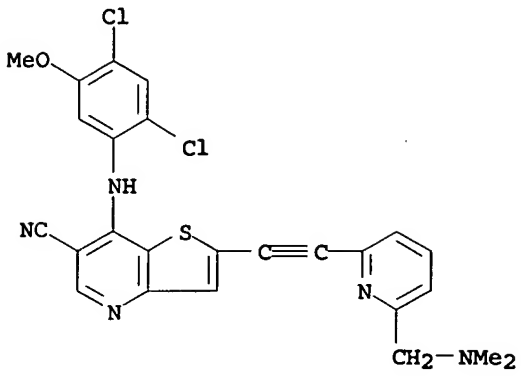


RN 700844-88-8 HCAPLUS
CN Thieno[2,3-b]pyridine-5-carbonitrile, 4-[(2,4-dichloro-5-methoxyphenyl)amino]-2-(3-pyridinylethynyl)- (9CI) (CA INDEX NAME)

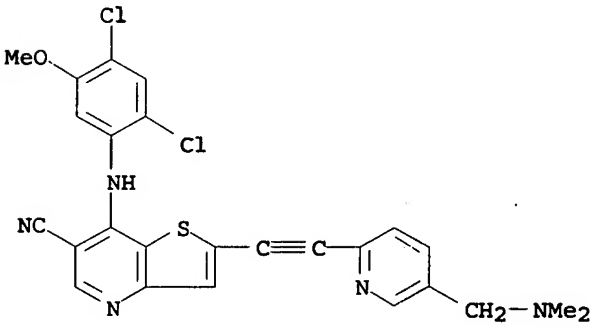


RN 700845-27-8 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-[[6-[(dimethylamino)methyl]-2-

pyridinyl]ethynyl]- (9CI) (CA INDEX NAME)



RN 700845-40-5 HCAPLUS
CN Thieno[3,2-b]pyridine-6-carbonitrile, 7-[(2,4-dichloro-5-methoxyphenyl)amino]-2-[[5-[(dimethylamino)methyl]-2-pyridinyl]ethynyl]- (9CI) (CA INDEX NAME)



IC ICM C07D495-00
CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63
ST thienopyridine carbonitrile prepn protein kinase **inhibitor** neoplasm stroke osteoporosis; polycystic kidney autoimmune disease rheumatoid arthritis thienopyridine carbonitrile prepn; transplant rejection thienopyridine carbonitrile prepn protein **tyrosine kinase inhibitor**
IT Human
(Thieno[3,2-b]pyridine-6-carbonitriles and thieno[2,3-b]pyridine-5-carbonitriles as protein kinase **inhibitors**)
IT Kidney, disease
(polycystic, treatment; preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)
IT Analgesics
Antirheumatic agents
Antitumor agents
Bone resorption **inhibitors**
Immunomodulators
Transplant rejection
(preparation of thieno[3,2-b]pyridine carbonitriles as protein

kinase **inhibitors**)

IT Brain, disease
(stroke, treatment; preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

IT Pain
(treatment of neuropathic; preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

IT Autoimmune disease
Neoplasm
Osteoporosis
Rheumatoid arthritis
(treatment; preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

IT 700844-36-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700844-39-9P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-iodothieno[2,3-b]pyridine-5-carbonitrile 700844-46-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700844-51-5P, 4-[6-Cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]benzoic acid 700844-57-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(3-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700844-59-3P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(4-formylphenyl)thieno[2,3-b]pyridine-5-carbonitrile 700844-61-7P, 4-[5-Cyano-4-[(3,4,5-trimethoxyphenyl)amino]thieno[2,3-b]pyridin-2-yl]butyric acid methyl ester 700844-62-8P, 2-(4-Hydroxybutyl)-4-[(3,4,5-trimethoxyphenyl)amino]thieno[2,3-b]pyridine-5-carbonitrile 700844-65-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(trimethylsilyl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-66-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-ethynylthieno[3,2-b]pyridine-6-carbonitrile 700844-69-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-(1,3-dioxolan-2-yl)thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700844-70-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(5-formylthien-3-yl)thieno[3,2-b]pyridine-6-carbonitrile 700844-77-5P, 2-(4-Formylphenyl)-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-82-2P, 2-Iodo-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-86-6P, tert-Butyl (2E)-3-[6-cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]prop-2-enoate 700844-89-9P, (2E)-3-[6-Cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]prop-2-enoic acid 700844-90-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(2-formyl-1-methyl-1H-imidazol-5-yl)thieno[3,2-b]pyridine-6-carbonitrile 700844-91-3P, 2-(4-Formylphenyl)-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

IT 700844-32-2P, 7-(2,4-Dichloro-5-methoxyanilino)thieno[3,2-b]pyridine-6-carbonitrile 700844-33-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-phenylthieno[3,2-b]pyridine-6-carbonitrile 700844-35-5P, 2-Bromo-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-37-7P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]thieno[2,3-b]pyridine-5-carbonitrile 700844-38-8P, 4-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]thieno[2,3-b]pyridine-5-carbonitrile 700844-40-2P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-methylthieno[2,3-b]pyridine-5-carbonitrile

700844-41-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-methylthieno[3,2-b]pyridine-6-carbonitrile 700844-42-4P, 7-[(2,4-Dichlorophenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-43-5P, 7-(2,4-Dichlorophenoxy)thieno[3,2-b]pyridine-6-carbonitrile 700844-44-6P, 7-[(2,4-Dichlorophenyl)thio]thieno[3,2-b]pyridine-6-carbonitrile 700844-45-7P, 7-[(2,4-Dichlorobenzyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-47-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-morpholinyl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-48-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-49-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-(2-hydroxyethyl)piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-50-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(piperidin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-52-6P, 4-[6-Cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]benzamide 700844-53-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(4-methoxyphenyl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile **700844-54-8P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-2-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-55-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-(dimethylamino)prop-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-56-0P, 2-(Benzo[b]furan-2-yl)-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-58-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-[(morpholin-4-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-60-6P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(morpholin-4-yl)methyl]phenyl]thieno[2,3-b]pyridine-5-carbonitrile 700844-63-9P, 2-[4-(4-Morpholinyl)butyl]-4-[(3,4,5-trimethoxyphenyl)amino]thieno[2,3-b]pyridine-5-carbonitrile **700844-67-3P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-4-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile **700844-68-4P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-3-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-71-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700844-72-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(morpholin-4-yl)methyl]thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700844-73-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-hydroxypiperidin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-74-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-(hydroxymethyl)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-75-3P, 2-Iodo-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-79-7P, 2-[4-(4-Methylpiperazin-1-ylmethyl)phenyl]-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-80-0P, 2-[4-(Morpholin-4-ylmethyl)phenyl]-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-81-1P, 2-[4-(Hydroxymethyl)phenyl]-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-83-3P, 2-Bromo-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile **700844-85-5P**, 7-[(4-Phenoxyphenyl)amino]-2-[(E)-2-(pyridin-4-yl)ethenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-87-7P, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-(4-methylpiperazin-1-yl)prop-1-ynyl]thieno[2,3-b]pyridine-5-carbonitrile **700844-88-8P**, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(pyridin-3-yl)ethynyl]thieno[2,3-b]pyridine-5-carbonitrile 700844-92-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(1E)-3-(4-

methylpiperazin-1-yl)-3-oxoprop-1-enyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-93-5P, 2-[3-(4-Methylpiperazin-1-yl)prop-1-ynyl]-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-94-6P, 2-[4-[(4-Methylpiperazin-1-yl)methyl]phenyl]-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-95-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[1-methyl-2-[(4-methylpiperazin-1-yl)methyl]-1H-imidazol-5-yl]thieno[3,2-b]pyridine-6-carbonitrile 700844-96-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-(4-methylpiperazin-1-yl)prop-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-97-9P, 2-[4-[(Dimethylamino)methyl]phenyl]-7-[(3,4,5-trimethoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700844-98-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(dimethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-99-1P, N-(6-Cyanothieno[3,2-b]pyridin-7-yl)-N-(2,4-dichloro-5-methoxyphenyl)acetamide 700845-01-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-((E)-2-phenylethenyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-03-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[1-[2-(morpholin-4-yl)ethyl]-1H-pyrazol-4-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-05-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(E)-2-(2H-1,2,3-triazol-2-yl)ethenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-06-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(5-formyl-2-furyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-07-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-(1,3-dicxolan-2-yl)-2-furyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-08-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]-2-furyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-09-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-ethylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-10-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-(pyrrolidin-1-yl)piperidin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-11-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[[2-(dimethylamino)ethyl](methyl)amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-12-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-(dimethylamino)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-13-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-14-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[3-[(dimethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-15-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(dimethylamino)methyl]-2-furyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-16-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-(1,3-dioxolan-2-yl)thien-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-17-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(2-formylthien-3-yl)thieno[3,2-b]pyridine-6-carbonitrile 700845-18-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(5-formylthien-2-yl)thieno[3,2-b]pyridine-6-carbonitrile 700845-19-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(dimethylamino)methyl]thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-20-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]thien-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-21-2P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700845-22-3P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[4-[(morpholin-4-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-23-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[2-[(4-

methylpiperazin-1-yl)methyl]thien-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-25-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[[3-(dimethylamino)propyl](methyl)amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-26-7P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[4-(morpholin-4-yl)but-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile **700845-27-8P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[6-[(dimethylamino)methyl]pyridin-2-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-28-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(dimethylamino)methyl]thien-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-29-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[[(pyridin-4-yl)methyl]amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-30-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(1H-pyrrol-3-yl)thieno[3,2-b]pyridine-6-carbonitrile 700845-31-4P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[3-(dimethylamino)prop-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-32-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[(2-methoxyethyl)amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-33-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[[2-(methylthio)ethyl]amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-34-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-thiomorpholinyl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-35-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(piperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-36-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-(morpholin-4-yl)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-37-0P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-38-1P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[4-[(diethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-39-2P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile **700845-40-5P**, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[5-[(dimethylamino)methyl]pyridin-2-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-41-6P, 7-[(2,4-Dichlorophenyl)amino]-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700845-42-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-43-8P, 2-[4-[(Butylamino)methyl]phenyl]-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700845-44-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(1-oxido-4-thiomorpholinyl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-45-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(diethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-46-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[(3-hydroxypropyl)amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-47-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(morpholin-4-yl)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-48-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[6-(morpholin-4-yl)pyridin-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-49-4P, 7-[(2,4-Dichloro-5-ethoxyphenyl)amino]-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700845-50-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(1,1-dioxido-4-thiomorpholinyl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-51-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-

(pyridin-2-yl)piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-52-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-phenylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-53-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[((2R,5S)-2,5-dimethylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-54-1P, 7-[(2,4-Dichlorophenyl)amino]-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-55-2P, 7-[(2,4-Dichloro-5-ethoxyphenyl)amino]-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-56-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)carbonyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-57-4P, 7-[[3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)thio]phenyl]amino]-2-[3-(diethylamino)prop-1-ynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-58-5P, 7-[(2,4-Dichlorophenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-59-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-(2-methoxyphenyl)piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-60-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[(3-methylbutyl)amino]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-61-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-(methylsulfonyl)piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-62-1P, 7-[(2,4-Dichloro-5-ethoxyphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-63-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[[4-[(pyridin-2-yl)methyl]piperazin-1-yl]methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-64-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[1-[2-(dimethylamino)ethyl]-1H-pyrrol-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-65-4P, 7-[(2,4-Dichlorophenyl)amino]-2-[4-(dimethylamino)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-66-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(1-methyl-1H-imidazol-5-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-67-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[6-[(dimethylamino)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-68-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(1H-pyrazol-4-yl)thieno[3,2-b]pyridine-6-carbonitrile 700845-69-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[[1-(2-hydroxyethyl)-1H-pyrazol-4-yl]ethynyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-70-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[1-[2-(morpholin-4-yl)ethyl]-1H-pyrazol-4-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-71-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(dimethylamino)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-72-3P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(diethylamino)methyl]pyridin-2-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-73-4P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[2-(dimethylamino)ethyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-74-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[1-(2-hydroxyethyl)-1H-pyrazol-4-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-75-6P, 4-[6-Cyano-7-[(2,4-dichloro-5-methoxyphenyl)amino]thieno[3,2-b]pyridin-2-yl]-N,N-dimethylbenzamide 700845-76-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(4-methylpiperazin-1-yl)methyl]-3-furyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-77-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-(5-formyl-3-furyl)thieno[3,2-b]pyridine-6-carbonitrile 700845-78-9P,

7-[(2-Chloro-5-methoxyphenyl)amino]-2-[4-[(dimethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-79-0P, 7-[(2-Chloro-5-methoxyphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-80-3P, 2-[4-[(Dimethylamino)methyl]phenyl]-7-[(5-methoxy-2-methylphenyl)amino]thieno[3,2-b]pyridine-6-carbonitrile 700845-81-4P, 7-[(5-Methoxy-2-methylphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-82-5P, 7-[(2,4-Dichlorophenyl)amino]-2-[4-[(dimethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-83-6P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[6-[(4-methylpiperazin-1-yl)methyl]pyridin-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-84-7P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[6-[(dimethylamino)methyl]pyridin-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-85-8P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[5-[(dimethylamino)methyl]furan-3-yl]thieno[3,2-b]pyridine-6-carbonitrile 700845-86-9P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-3-[2-[4-(piperidin-1-yl)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700845-87-0P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]-1-oxo-1H-thieno[3,2-b]pyridine-6-carbonitrile 700845-88-1P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(4-methylpiperazin-1-yl)methyl]phenyl]-1,1-dioxo-1H-thieno[3,2-b]pyridine-6-carbonitrile 700845-89-2P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(dimethylamino)methyl]phenyl]-1-oxo-1H-thieno[3,2-b]pyridine-6-carbonitrile 700845-90-5P, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[4-[(dimethylamino)methyl]phenyl]-1,1-dioxo-1H-thieno[3,2-b]pyridine-6-carbonitrile 700845-91-6P, 2-[4-[(Dimethylamino)methyl]phenyl]-1-oxo-7-[(3,4,5-trimethoxyphenyl)amino]-1H-thieno[3,2-b]pyridine-6-carbonitrile 700845-92-7P, 2-[4-[(Dimethylamino)methyl]phenyl]-1,1-dioxo-7-[(3,4,5-trimethoxyphenyl)amino]-1H-thieno[3,2-b]pyridine-6-carbonitrile
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

IT 114051-78-4, Lck kinase 139691-76-2, Raf kinase 141349-89-5, Src kinase 146702-84-3, MEK kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibition**; preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

IT 20828-66-4P, 4-(Thiophen-2-yl)butyric acid methyl ester 63873-61-0P, 4-Chlorothieno[2,3-b]pyridine-5-carbonitrile 75782-81-9P, (5-Phenyl-3-thienyl)amine 90690-94-1P, 7-Chlorothieno[3,2-b]pyridine-6-carboxylic acid 700844-07-1P, 7-Oxo-4,7-dihydrothieno[3,2-b]pyridine-6-carbonitrile 700844-08-2P 700844-09-3P, 7-Chlorothieno[3,2-b]pyridine-6-carbonitrile 700844-10-6P, 7-Chlorothieno[3,2-b]pyridine-6-carboxamide 700844-11-7P, Ethyl 2-cyano-3-[(5-phenyl-3-thienyl)amino]-2-propenoate 700844-12-8P, 7-Oxo-2-phenyl-4,7-dihydrothieno[3,2-b]pyridine-6-carbonitrile 700844-13-9P, 2-Bromo-7-chlorothieno[3,2-b]pyridine-6-carbonitrile 700844-15-1P, 2-Bromo-7-hydroxythieno[3,2-b]pyridine-6-carboxylic acid 700844-16-2P, 2-Bromo-7-hydroxythieno[3,2-b]pyridine-6-carboxamide 700844-17-3P, 7-Chloro-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700844-18-4P, 4-Chloro-2-iodothieno[2,3-b]pyridine-5-carbonitrile 700844-19-5P, 4-Chlorothieno[2,3-b]pyridine-5-carboxylic acid 700844-20-8P, 4-Chlorothieno[2,3-b]pyridine-5-

carboxamide 700844-21-9P, 4-Chloro-2-methylthieno[2,3-b]pyridine-5-carbonitrile 700844-22-0P, 7-Chloro-2-methylthieno[3,2-b]pyridine-6-carbonitrile 700844-23-1P, 4-(5-Nitrothiophen-2-yl)butyric acid methyl ester 700844-24-2P, 4-(5-Aminothiophen-2-yl)butyric acid methyl ester 700844-25-3P, 4-(4-Chloro-5-cyanothieno[2,3-b]pyridin-2-yl)butyric acid methyl ester 700844-26-4P, Methyl 4-(5-cyano-4-oxo-4,7-dihydrothieno[2,3-b]pyridin-2-yl)butanoate 700844-27-5P, 7-Chloro-2-formylthieno[3,2-b]pyridine-6-carbonitrile 700844-28-6P, tert-Butyl (2E)-3-(7-chloro-6-cyanothieno[3,2-b]pyridin-2-yl)prop-2-enoate 700844-29-7P, 7-Chloro-2-[4-(dimethylamino)phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-30-0P, 7-Chloro-2-(4-formylphenyl)thieno[3,2-b]pyridine-6-carbonitrile 700844-31-1P, 7-Chloro-2-[4-[(dimethylamino)methyl]phenyl]thieno[3,2-b]pyridine-6-carbonitrile 700844-34-4P, 7-Chloro-2-phenylthieno[3,2-b]pyridine-6-carbonitrile
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

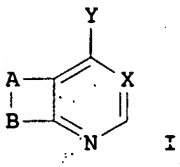
IT 80449-02-1, Protein **tyrosine kinase** 372092-80-3, Protein kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

IT 94-05-3, Ethyl 2-(ethoxymethylene)-2-cyanoacetate 95-00-1, 2,4-Dichlorobenzylamine 100-43-6, 4-Vinylpyridine 103-76-4, 1-Piperazineethanol 109-01-3, N-Methylpiperazine 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 120-83-2, 2,4-Dichlorophenol 139-59-3, 4-Phenoxyaniline 288-35-7, 2H-1,2,3-Triazole 554-00-7, 2,4-Dichloroaniline 768-60-5, 1-Ethynyl-4-methoxybenzene 1066-54-2, (Trimethylsilyl)acetylene 1122-41-4, 2,4-Dichlorobenzenethiol 1945-84-2, 2-Ethynylpyridine 2510-23-8, 3-Ethynylpyridine 3647-69-6, 4-(2-Chloroethyl)morpholine hydrochloride 5382-16-1, 4-Hydroxypiperidine 6783-05-7 7223-38-3, 1-Dimethylamino-2-propyne 14047-29-1, 4-Carboxyphenylboronic acid 15854-87-2, 4-Iodopyridine 22288-78-4, Methyl 3-amino-2-thiophenecarboxylate 24313-88-0, 3,4,5-Trimethoxyaniline 28611-39-4, [4-(Dimethylamino)phenyl]boronic acid 35000-38-5, (tert-Butoxycarbonylmethylene)triphenylphosphorane 45813-02-3, 1-Methyl-4-prop-2-ynylpiperazine 59713-58-5, Ethyl 4-chlorothieno[2,3-b]pyridine-5-carboxylate 83179-01-5, Ethyl 7-chlorothieno[3,2-b]pyridine-6-carboxylate 87199-16-4, 3-Formylphenylboronic acid 87199-17-5, 4-Formylphenylboronic acid 98437-24-2, 2-Benzo[b]furanboronic acid 98446-49-2, 2,4-Dichloro-5-methoxyaniline 100063-22-7, Methyl 3-amino-5-phenylthiophene-2-carboxylate 133303-88-5, 3-Chloro-4-[(1-methyl-1H-imidazol-2-yl)sulfanyl]aniline 364793-90-8, Tributyl[5-([1,3]dioxolan-2-yl)thiophen-3-yl]stannane 364794-89-8, 1-Methyl-5-(tributylstannyl)-1H-imidazole-2-carboxaldehyde 700844-14-0, Ethyl 2-bromo-7-hydroxythieno[3,2-b]pyridine-6-carboxylate 700844-64-0, 2-(4-Bromobutyl)-4-[(3,4,5-trimethoxyphenyl)amino]thieno[2,3-b]pyridine-5-carbonitrile 700844-76-4, 4-Chloro-2-iodothieno[3,2-b]pyridine-6-carbonitrile 700844-78-6, 2-Iodo-7-[(4-phenoxyphenyl)amino]thieno[3,2-b]pyridine-5-carbonitrile 700844-84-4, 2-Bromo-4-chlorothieno[3,2-b]pyridine-6-carbonitrile 700845-00-7, 7-[(2,4-Dichloro-5-methoxyanilino)amino]thieno[3,2-b]pyridine-6-carbonitrile 700845-02-9, 4-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-iodothieno[3,2-b]pyridine-5-carbonitrile

700845-04-1, 7-[(2,4-Dichloro-5-methoxyphenyl)amino]-2-[(1H-pyrazol-4-yl)ethynyl]thieno[3,2-b]pyridine-6-carbonitrile
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of thieno[3,2-b]pyridine carbonitriles as protein kinase **inhibitors**)

L138 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:200102 Document No. 140:235750 Preparation of quinazolines as epidermal growth factor receptor (erbB) **inhibitors** for the treatment of proliferative diseases. Kath, John Charles; Tom, Norma Jacqueline; Cox, Eric David; Bhattacharya, Samit Kumar (Pfizer Products Inc., USA). Eur. Pat. Appl. EP 1396489 A1 20040310, 26 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY. (English). CODEN: EPXXDW. APPLICATION: EP 2003-24331 19991224. PRIORITY: US 1999-PV117341 19990127; EP 1999-310574 19991224.

GI

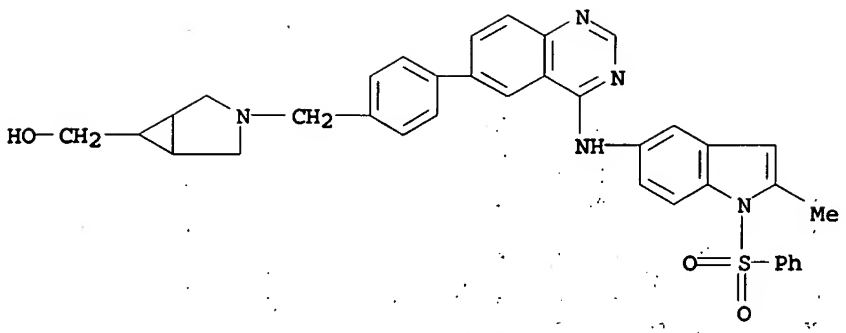


I

AB Title compds. I [X = N, CH; A-B = R4-substituted fused pyridyl, pyrimidyl, furanyl, etc.; Y = NR1R3; R1, R2 = H, alkyl; R3 = -(CR1R2)m-R8 or R1 and R3 are taken together with N; R4 = -(CR1R2)p-aryl, -(CR1R2)p-heterocyclic, -(CR1R2)q-NR1R9, etc.; R8 = -(CR1R2)p-aryl, -(CR1R2)p-heterocyclic; R9 = fused or bridged bicyclic ring, spirocyclic ring with provisos; m= 0, 1; p, q = 0-5] and their pharmaceutically acceptable salts were prepared For example, coupling of compound I [X = N; A-B = -CR4=CH-CH=CH-; Y = OPh; R4 = 4-((6-hydroxymethyl-3-aza-bicyclo[3.1.0]hex-3-yl)methyl)phenyl], e.g., prepared from 6-iodo-4-quinazolinone in 4-steps, with 1-cyclopropylmethyl-1H-indol-5-ylamine, afforded compound I [X = N; A-B = -CR4=CH-CH=CH-; Y = 1-cyclopropylmethyl-1H-indol-5-ylamino; R4 = 4-((6-hydroxymethyl-3-aza-bicyclo[3.1.0]hex-3-yl)methyl)phenyl] in 67% yield. In c-erbB2 kinase **inhibition** assays, compds. I showed potent (sic.) **inhibition** of the erbB2 **tyrosine kinase** activity (no data provided). Compds. I are claimed useful for the treatment of cancer and benign proliferative diseases, e.g., psoriasis.

IT **289037-40-7P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)

RN 289037-40-7 HCAPLUS
CN 1H-Indol-5-amine, N-[6-[4-[[6-(hydroxymethyl)-3-azabicyclo[3.1.0]hex-3-yl]methyl]phenyl]-4-quinazolinyl]-2-methyl-1-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



IC ICM C07D239-94
ICS C07D453-02; C07D451-02; C07D451-08; A61K031-505; A61P035-00
CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1
ST quinazoline prepn erbB **tyrosine kinase inhibitor** antiproliferative agent; epidermal growth factor receptor quinazoline prepn **inhibitor** antiproliferative agent; psoriasis treatment quinazoline prepn erbB **tyrosine kinase inhibition**; anticancer agent quinazoline prepn erbB **tyrosine kinase inhibition**
IT Leukemia
(acute, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Pituitary gland, neoplasm
(adenoma, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Intercalation
(agents, medicaments with; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Cytotoxic agents
(antimetabolites, medicaments with; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Immunity
(autoimmunity, medicaments with modifiers of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Prostate gland, disease
(benign hyperplasia, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Hyperplasia
(benign prostatic, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Uterus, neoplasm
(cervix, carcinoma, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Carcinoma
(cervix, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Leukemia
(chronic, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Intestine, neoplasm
(colon, treatment of; preparation of quinazolines as erbB

inhibitors for the treatment of proliferative diseases)
IT Intestine, neoplasm
(colorectal, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Carcinoma
(endometrial, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Uterus, neoplasm
(endometrium, carcinoma, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Neoplasm
Neoplasm
(head and neck, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Cell cycle
(medicaments with **inhibitors** of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Growth factor receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(medicaments with **inhibitors** of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Alkylating agents, biological
Antitumor agents
Cytotoxic agents
(medicaments with; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(medicaments with; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Antiandrogens
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medicaments with; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Hormone antagonists
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(medicaments with; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Eye, neoplasm
(melanoma, treatment of intra-; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Organelle
(mitotic spindle, medicaments with **inhibitors** of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Kidney
(pelvis, treatment of carcinoma of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Adenoma
(pituitary, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Cytotoxic agents
Human
(preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Kidney, neoplasm
(renal cell carcinoma, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative

diseases)
IT Carcinoma
(renal cell, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Eye, disease
(retinopathy, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Animal tissue, disease
(soft, neoplasm, sarcoma, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Sarcoma
(soft-tissue, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Brain
(stem, treatment of glioma; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Cell proliferation
(treatment of abnormal; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Lymphoproliferative disorders
(treatment of benign; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Penis
Ureter
Urethra
(treatment of cancer of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Oviduct
(treatment of carcinoma of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Bladder
(treatment of lymphocytic lymphomas cancer of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Lymphoma
(treatment of primary CNS; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Intestine, neoplasm
(treatment of small; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)
IT Adrenal gland, neoplasm
Bone, neoplasm
Central nervous system, neoplasm
Endocrine system, neoplasm
Esophagus, neoplasm
Head and Neck, neoplasm
Head and Neck, neoplasm
Hodgkin's disease
Kidney, neoplasm
Lung, neoplasm
Mammary gland, neoplasm
Melanoma
Neoplasm
Ovary, neoplasm
Pancreas, neoplasm
Parathyroid gland, neoplasm
Prostate gland, neoplasm
Psoriasis
Skin, neoplasm
Stomach, neoplasm
Thyroid gland, neoplasm

Uterus, neoplasm
Vagina, neoplasm
(treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)

IT Spinal column
(vertebra, treatment of cancer of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)

IT Reproductive system, neoplasm
(vulvar carcinoma, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)

IT Carcinoma
(vulvar, treatment of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)

IT 80449-01-0, Topoisomerase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(medicaments with **inhibitors** of; preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)

IT 289036-76-6P, [6-[4-(6-Amino-3-azabicyclo[3.1.0]hex-3-ylmethyl)phenyl]-quinazolin-4-yl](4-phenoxyphenyl)amine 289036-77-7P, (3-[4-[4-[4-Benzylphenylamino)-quinazolin-6-yl]benzyl]-3-azabicyclo[3.1.0]hex-6-yl)methanol 289036-78-8P, (3-[4-[4-[4-Phenoxyphenylamino)-quinazolin-6-yl]benzyl]-3-azabicyclo[3.1.0]hex-6-yl)methanol 289036-79-9P, (3-[4-[4-((1-(Phenylsulfonyl)-1H-indol-5-yl)amino)-quinazolin-6-yl]benzyl]-3-azabicyclo[3.1.0]hex-6-yl)methanol 289036-80-2P 289036-81-3P 289036-82-4P 289036-83-5P 289036-84-6P 289036-85-7P 289036-86-8P 289036-87-9P 289036-88-0P 289036-89-1P 289036-90-4P 289036-91-5P 289036-92-6P 289036-93-7P 289036-94-8P 289036-95-9P 289036-96-0P 289036-97-1P 289036-98-2P 289036-99-3P 289037-00-9P 289037-01-0P 289037-02-1P 289037-03-2P 289037-05-4P 289037-06-5P 289037-07-6P 289037-08-7P 289037-09-8P 289037-19-0P, [6-[4-(6-Amino-3-azabicyclo[3.1.0]hex-3-ylmethyl)phenyl]-quinazolin-4-yl](1-phenylsulfonyl-1H-indol-5-yl)amine 289037-20-3P, [6-[4-(6-Amino-3-azabicyclo[3.1.0]hex-3-ylmethyl)phenyl]-quinazolin-4-yl](4-benzylphenyl)amine 289037-23-6P 289037-25-8P 289037-26-9P 289037-27-0P 289037-28-1P 289037-29-2P 289037-30-5P 289037-31-6P 289037-32-7P 289037-33-8P 289037-34-9P 289037-35-0P 289037-36-1P 289037-37-2P 289037-38-3P 289037-39-4P **289037-40-7P** 289037-41-8P 289037-42-9P 289037-43-0P 289037-44-1P 289037-45-2P 289037-46-3P 289037-47-4P 669008-73-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)

IT 108-95-2, Phenol, reactions 3473-63-0, Formamidine acetate 5326-47-6, 2-Amino-5-iodobenzoic acid 7432-11-3, 8-Aza-bicyclo[3.2.1]octan-3-ol 87199-17-5, 4-Formylphenylboronic acid 124400-52-8, 5-Amino-1-benzenesulfonylindole 289037-48-5, 3-Azabicyclo[3.1.0]hexane-6-methanol 289037-49-6, (1-(Cyclopropylmethyl)-1H-indol-5-yl)amine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)

IT 16064-08-7P 98556-31-1P, 6-Iodo-4-chloroquinazoline 287193-14-0P, 6-Iodo-4-phenoxyquinazoline 287193-15-1P, (1-(Phenylsulfonyl)-1H-indol-5-yl)(6-iodoquinazolin-4-yl)amine

289037-11-2P, 4-(4-Phenoxyquinazolin-6-yl)benzaldehyde
289037-13-4P, [3-[4-(4-Phenoxyquinazolin-6-yl)benzyl]-3-azabicyclo[3.1.0]hex-6-yl]methanol 289037-17-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of quinazolines as erbB **inhibitors** for the treatment of proliferative diseases)

L138 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2003:719473 Document No. 139:246042 Preparation of benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** and their use as angiogenesis **inhibitors**. Chamberlain, Stanley Dawes; Cheung, Mui; Emerson, Holly Kathleen; Johnson, Neil W.; Nailor, Kristen Elizabeth; Sammond, Douglas Mccord; Semones, Marcus (Smithkline Beecham Corporation, USA). PCT Int. Appl. WO 2003074515 A1 20030912, 253 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-US6022 20030228. PRIORITY: US 2002-2002/PV360741 20020301.

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT
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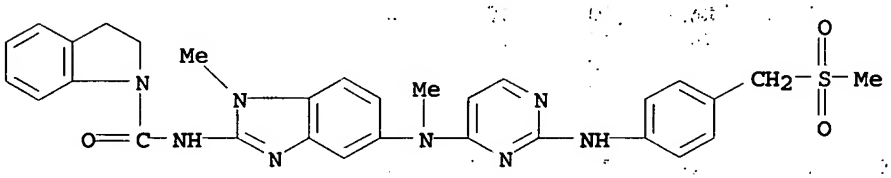
AB Benzimidazolylamino arylamino pyrimidines (shown as I; variables defined below; e.g. N2-isopropyl-N5,1-dimethyl-N5-[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1H-benzimidazole-2,5-diamine (shown as II)), which are useful as TIE-2 and/or VEGFR-2 **inhibitors** are described herein. The described invention also includes methods of making such derivs. as well as methods of using the same in the treatment of hyperproliferative diseases. Semiquant. pIC50 values for **inhibition** of TIE-2 and VEGF are tabulated for up to 37 examples of I. Although the methods of preparation are not claimed, 57 example prepns. of intermediates and .apprx.200 example prepns./characterization data for I are included. For I: D is -NRR1, -OR, -SR, -S(O)R, or -S(O)2R; R is H, C1-C8 alkyl, C3-C7 cycloalkyl, aralkyl, aryl, heteroaryl, -C(O)NR1R1, - C(O)OR1, acyl, aroyl, or heteroaroyl; R1 is H, C1-C8alkyl, C3-C7 cycloalkyl, aralkyl, or aryl; R2 is C1-C6alkyl or C3-C7 cycloalkyl; R3 is H, C1-C4alkyl, C1-C4haloalkyl, aralkyl, cyanoalkyl, -(CH2)pC:CH(CH2)tH, -(CH2)pC.tplbond.C(CH2)tH, or C3-C7 cycloalkyl; p is 1-3; t is 0-1; R4 is H, halo, or cyano. Q1 is H, halo, C1-C2haloalkyl, C1-C2alkyl, C1-C2alkoxy, or C1-C2haloalkoxy; Q2 is A1 or A2; Q3 is A1 when Q2 is A2 and Q3 is A2 when Q2 is A1; wherein A1 is H, halo, C1-C3alkyl, C1-C3haloalkyl, -OR5, and A2 = -(Z)m-(Z1)-(Z2), wherein Z is CH2 and m = 0-3, or Z is NR5 and m is 0 or 1, or Z is O and m is 0 or 1, or Z is CH2NR6 and m is 0 or 1; Z1 is S(O)2, S(O), or C(O); and Z2 is C1-C4alkyl, cycloalkyl, heterocyclyl, -NR8R9, aryl, arylamino, aralkyl, aralkoxy, or heteroaryl; R5 and R6 = H, hydroxy, alkoxy, aryloxy, aralkoxy, C1-C4alkyl, C3-C7cycloalkyl,

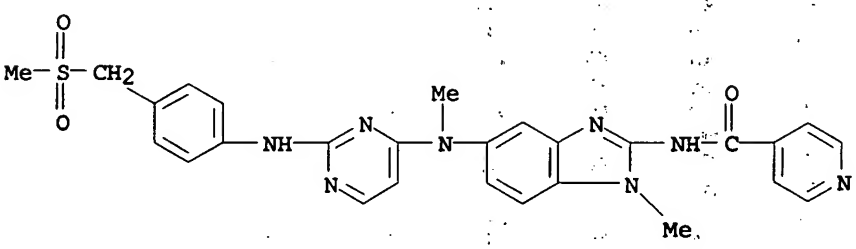
heterocyclyl, -S(O)2R7, and -C(O)R7; R7 is C1-C4alkyl, or C3-C7cycloalkyl; R8 is H, hydroxy, C1-C6 alkyl, C1-C6 alkoxy, aryloxy, aralkoxy, C3-C7 cycloalkyl, and C3-C7 cycloalkoxy; and R9 is H, C1-C6 alkyl, C3-C7cycloalkyl, aryl, acyl, carbamoyl, or heterocyclyl.

IT **596133-49-2P**, N-[1-Methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]indoline-1-carboxamide **596133-53-8P**, N-[1-Methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]isonicotinamide **596133-75-4P**, 3H-Benzimidazole-5-carboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** and their use as angiogenesis **inhibitors**)

RN 596133-49-2 HCAPLUS
CN 1H-Indole-1-carboxamide, 2,3-dihydro-N-[1-methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]-4-pyrimidinyl]amino]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 596133-53-8 HCAPLUS
CN 4-Pyridinecarboxamide, N-[1-methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]-4-pyrimidinyl]amino]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



RN 596133-75-4 HCAPLUS
CN 1H-Benzimidazole-5-carboxamide, N-[1-methyl-5-[methyl[2-[[3-[(methylsulfonyl)methyl]phenyl]amino]-4-pyrimidinyl]amino]-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)

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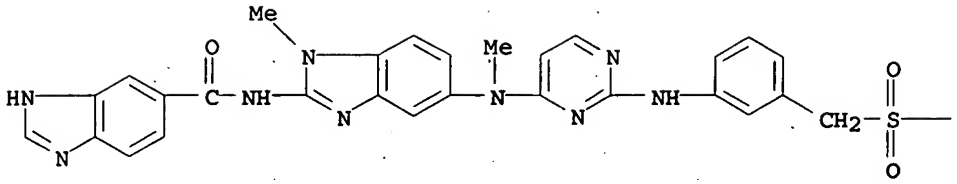

PAGE 1-B

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IC ICM C07D403-12
ICS C07D401-14; C07D403-14; C07D405-14; C07D413-14; A61K031-506; A61P035-00
CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63
ST benzimidazolylamino arylamino pyrimidine TIE2 VEGFR **inhibitor** angiogenesis **inhibitor**; antitumor agent benzimidazolylamino arylamino pyrimidine TIE2 VEGFR **inhibitor**; pharmaceutical compn benzimidazolylamino arylamino pyrimidine angiogenesis **inhibitor**
IT Neuregulin receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(HER4, **inhibitors**; combined with benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** for use as angiogenesis **inhibitors**)
IT **Tyrosine kinase** receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Tie-2, **inhibitors**; combined with benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** for use as angiogenesis **inhibitors**)
IT Angiogenesis **inhibitors**
(combined with benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** for use as angiogenesis **inhibitors**)
IT Epidermal growth factor receptors
Growth factor receptors
Platelet-derived growth factor receptors
Vascular endothelial growth factor receptors
neu (receptor)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitors**; combined with benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** for use as angiogenesis **inhibitors**)
IT Antitumor agents
Drug delivery systems
Human
Neoplasm
(preparation of benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** and their use as angiogenesis **inhibitors**)

IT 596132-35-3P, [1-Methyl-5-[methyl[2-[(3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]phenylcarbamic acid tert-butyl ester hydrochloride 596132-38-6P, [1-Methyl-5-[methyl[2-[(4-methyl-3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl](phenyl)carbamic acid tert-butyl ester hydrochloride 596132-67-1P, [5-[[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl](4-methoxyphenyl)carbamic acid tert-butyl ester 596132-70-6P, (4-Methoxyphenyl)[1-methyl-5-[methyl[2-[(4-sulfamoylmethylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]carbamic acid tert-butyl ester 596132-73-9P, [5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl](4-methoxyphenyl)carbamic acid tert-butyl ester 596132-76-2P, [5-[[2-[[4-[1-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl](4-methoxyphenyl)carbamic acid tert-butyl ester 596133-23-2P, 4-[[4-[Methyl[1-methyl-2-(methylsulfanyl)-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]benzenesulfonamide 596133-24-3P, 4-[[4-[[2-(Methanesulfinyl)-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** and their use as angiogenesis **inhibitors**)

IT 596131-75-8P, N-Isopropyl-N'-methyl-1-methyl-N'-[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1H-benzimidazole-2,5-diamine hydrochloride 596131-76-9P, N-Isopropyl-N'-methyl-1-methyl-N'-[2-[[4-[(aminosulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1H-benzimidazole-2,5-diamine hydrochloride 596131-77-0P 596131-78-1P, N-Benzyl-N'-methyl-1-methyl-N'-[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1H-benzimidazole-2,5-diamine hydrochloride 596131-79-2P, N'-Methyl-1-methyl-N'-[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N-phenyl-1H-benzimidazole-2,5-diamine 596131-80-5P 596131-81-6P, 5-[[4-[[2-(Benzylamino)-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-N-methoxy-2-methylbenzenesulfonamide 596131-82-7P, 3-[[4-[(2-Benzylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596131-83-8P, 5-[[4-[(2-Benzylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596131-84-9P, [4-[[4-[(2-Benzylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide hydrochloride 596131-85-0P, 2-[4-[[4-[(2-Benzylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide hydrochloride 596131-86-1P, 3-[[4-[[2-[(4-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596131-87-2P, 5-[[4-[[2-[(4-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596131-88-3P, N-(4-Fluorobenzyl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596131-89-4P, [4-[[4-[[2-[(4-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide hydrochloride 596131-90-7P,

2-[4-[[4-[[2-[(4-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide hydrochloride 596131-91-8P, 3-[[4-[[2-[(4-Methoxybenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596131-92-9P, 5-[[4-[[2-[(4-Methoxybenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596131-93-0P, N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596131-94-1P, [4-[[4-[[2-[(4-Methoxybenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide hydrochloride 596131-95-2P, 2-[4-[[4-[[2-[(4-Methoxybenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide hydrochloride 596131-96-3P, 5-[[4-[[2-[(3-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596131-97-4P, 3-[[4-[[2-[(3-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596131-98-5P, N-(3-Fluorobenzyl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596131-99-6P, [4-[[4-[[2-[(3-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide hydrochloride 596132-00-2P, 2-[4-[[4-[[2-[(3-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide hydrochloride 596132-01-3P, 3-[[4-[[2-[(4-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596132-02-4P, 5-[[4-[[2-[(4-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596132-03-5P, 2-[4-[[4-[[2-[(4-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide hydrochloride 596132-04-6P, N-(4-Chlorobenzyl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-05-7P, 3-[[4-[(2-Benzylamino-1-ethyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596132-06-8P, 5-[[4-[(2-Benzylamino-1-ethyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596132-07-9P, N-Benzyl-1-ethyl-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-08-0P, [4-[[4-[(2-Benzylamino-1-ethyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide hydrochloride 596132-09-1P, 3-[[4-[[2-[(2-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]methyl]benzenesulfonamide hydrochloride 596132-10-4P, 5-[[4-[[2-[(2-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596132-11-5P, [4-[[4-[[2-[(2-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide hydrochloride 596132-12-6P, 2-[4-[[4-[(2-Benzylamino-1-ethyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide hydrochloride 596132-13-7P, 3-[[4-[Methyl[1-methyl-2-[(1-phenylethyl)amino]-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596132-14-8P, 2-Methyl-5-[[4-[methyl[1-methyl-2-

[(1-phenylethyl)amino]-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596132-15-9P, N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine hydrochloride 596132-16-0P, [4-[[4-[Methyl[1-methyl-2-[(1-phenylethyl)amino]-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide hydrochloride 596132-17-1P, 3-[[4-[[2-[(3-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596132-18-2P, 5-[[4-[[2-[(3-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596132-19-3P, [4-[[4-[[2-[(4-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide hydrochloride 596132-20-6P, Methanesulfonic acid 3-[[4-[[2-[(4-chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl ester hydrochloride 596132-21-7P, N'-[2-[[4-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-22-8P, N'-[2-[[3-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-23-9P, N'-[2-[[4-[1-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-24-0P, N'-[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-25-1P, N-Benzyl-N'-[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-26-2P, N'-[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine hydrochloride 596132-27-3P, N'-[2-[[3-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine hydrochloride 596132-28-4P, N'-[2-[[4-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine hydrochloride 596132-29-5P, 2-Methyl-5-[[4-[methyl[1-methyl-2-[(4-methylbenzyl)amino]-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596132-30-8P, N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine hydrochloride 596132-31-9P, N'-[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine 596132-32-0P, N'-[2-[[4-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine hydrochloride 596132-33-1P, N'-[2-[[3-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine hydrochloride 596132-34-2P, N'-[2-[[4-[1-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine hydrochloride 596132-36-4P, 3-[[4-[Methyl(1-methyl-2-phenylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596132-37-5P, 3-[[4-[Methyl(1-methyl-2-phenylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]benzenesulfonamide trifluoroacetate 596132-39-7P, N'-[2-[[3-(Methanesulfonyl)-4-methylphenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-phenyl-1H-benzimidazole-2,5-diamine 596132-40-0P 596132-41-1P,

1-[4-[[4-[Methyl(1-methyl-2-phenylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596132-42-2P, [4-[[4-[Methyl(1-methyl-2-phenylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide trifluoroacetate 596132-43-3P, Methanesulfonic acid 4-[[4-[methyl(1-methyl-2-phenylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]phenyl ester 596132-44-4P, Methanesulfonic acid 4-[[4-[methyl(1-methyl-2-phenylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]phenyl ester trifluoroacetate 596132-45-5P, 3-[[4-[[2-[(4-Fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596132-46-6P, 3-[[4-[[2-[(4-Fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide trifluoroacetate 596132-47-7P, 5-[[4-[[2-[(4-Fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596132-48-8P, 5-[[4-[[2-[(4-Fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide trifluoroacetate 596132-49-9P, N-(4-Fluorophenyl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596132-50-2P 596132-51-3P, 1-[4-[[4-[[2-[(4-Fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596132-52-4P, [4-[[4-[[2-[(4-Fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide trifluoroacetate 596132-53-5P, Methanesulfonic acid 4-[[4-[[2-[(4-fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl ester 596132-54-6P, Methanesulfonic acid 4-[[4-[[2-[(4-fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl ester trifluoroacetate 596132-55-7P, Methanesulfonic acid 3-[[4-[[2-[(4-fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl ester 596132-56-8P, Methanesulfonic acid 3-[[4-[[2-[(4-fluorophenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl ester trifluoroacetate 596132-58-0P, N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-p-tolyl-1H-benzimidazole-2,5-diamine 596132-59-1P 596132-60-4P, 1-[4-[[4-[[2-[(4-tert-Butylphenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596132-61-5P, [4-[[4-[[2-[(4-tert-Butylphenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide trifluoroacetate 596132-62-6P, 3-[[4-[[2-[(4-tert-Butylphenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596132-63-7P, 3-[[4-[[2-[(4-tert-Butylphenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide trifluoroacetate 596132-64-8P, 5-[[4-[[2-[(4-tert-Butylphenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596132-65-9P, N-(4-tert-Butylphenyl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596132-66-0P 596132-69-3P 596132-71-7P, 1-[4-[[4-[[[2-[(4-Methoxyphenyl)amino]-1-methyl-1H-benzimidazol-5-yl]methyl]amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596132-72-8P, [4-[[4-[[[2-[(4-Methoxyphenyl)amino]-1-methyl-1H-benzimidazol-5-yl]methyl]amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide trifluoroacetate 596132-74-0P, N'-[2-[[3-

[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxyphenyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596132-75-1P 596132-77-3P, N'-[2-[[4-[1-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxyphenyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596132-78-4P 596132-79-5P, N'-[2-[[3-[1-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxyphenyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596132-80-8P 596132-82-0P, 3-[[4-[(2-Isopropylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596132-83-1P, 2-Chloro-5-[[4-[(2-isopropylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596132-84-2P, 5-[[4-[(2-Isopropylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596132-85-3P, 2-[4-[[4-[(2-Isopropylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide hydrochloride 596132-86-4P, Methanesulfonic acid 4-[[4-[(2-isopropylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl ester hydrochloride 596132-87-5P, Methanesulfonic acid 3-[[4-[(2-isopropylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl ester hydrochloride 596132-88-6P, N-Isopropyl-N'-[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-89-7P, 3-[[4-[(1-Methyl-2-phenethylamino-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596132-90-0P, 2-Methyl-5-[[4-[methyl(1-methyl-2-phenethylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596132-91-1P, [4-[[4-[Methyl(1-methyl-2-phenethylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide hydrochloride 596132-92-2P, N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-phenethyl-1H-benzimidazole-2,5-diamine 596132-93-3P, 2-[4-[[4-[Methyl(1-methyl-2-phenethylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide hydrochloride 596132-94-4P, N-tert-Butyl-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-95-5P, N-Cyclohexyl-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596132-96-6P, 5-[[4-[[2-(Cyclohexylamino)-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide hydrochloride 596132-97-7P, N-Cyclohexyl-N'-[2-[[3-[2-(methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-98-8P, N-Cyclohexyl-N'-[2-[[4-[2-(methanesulfonyl)ethyl]phenyl]amino]pyridin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596132-99-9P, N-Cyclohexyl-N'-[2-[[4-[1-(methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine hydrochloride 596133-00-5P, 2-Methyl-5-[[4-[methyl(1-methyl-2-methylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]benzenesulfonamide hydrochloride 596133-01-6P 596133-02-7P, 3-[[4-[Methyl(1-methyl-2-methylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596133-03-8P, N'-[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596133-04-9P, [4-[[4-[(1-Ethyl-2-methylamino-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide

hydrochloride 596133-05-0P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(4-trifluoromethylphenyl)-1H-benzimidazole-2,5-diamine 596133-06-1P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(3-chlorophenyl)-1H-benzimidazole-2,5-diamine 596133-07-2P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(4-chlorophenyl)-1H-benzimidazole-2,5-diamine 596133-08-3P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(2,4-dichlorophenyl)-1H-benzimidazole-2,5-diamine 596133-09-4P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(2,5-dichlorophenyl)-1H-benzimidazole-2,5-diamine 596133-10-7P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-[2-chloro-4-(trifluoromethyl)phenyl]-1H-benzimidazole-2,5-diamine 596133-11-8P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-[2-chloro-5-(trifluoromethyl)phenyl]-1H-benzimidazole-2,5-diamine 596133-12-9P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(4-morpholinophenyl)-1H-benzimidazole-2,5-diamine 596133-13-0P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(3-fluorophenyl)-1H-benzimidazole-2,5-diamine 596133-14-1P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(2,4-difluorophenyl)-1H-benzimidazole-2,5-diamine 596133-15-2P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(2-chloro-4-fluorophenyl)-1H-benzimidazole-2,5-diamine 596133-16-3P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(4-chloro-2-fluorophenyl)-1H-benzimidazole-2,5-diamine 596133-17-4P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(2-chloro-5-fluorophenyl)-1H-benzimidazole-2,5-diamine 596133-18-5P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(2-fluoro-4-methylphenyl)-1H-benzimidazole-2,5-diamine 596133-20-9P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-(2-fluorophenyl)-1H-benzimidazole-2,5-diamine 596133-21-0P, 1-Methyl-N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-N-[2-fluoro-5-(trifluoromethyl)phenyl]-1H-benzimidazole-2,5-diamine 596133-26-5P, 4-[[4-[Methyl[1-methyl-2-[(4-trifluoromethylphenyl)amino]-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]benzenesulfonamide 596133-35-6P, N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(3-trifluoromethylphenyl)-1H-benzimidazole-2,5-diamine 596133-36-7P, N-(5-tert-Butylisoxazol-3-yl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596133-37-8P, N-(5-tert-Butylisoxazol-3-yl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-1H-benzimidazole-2,5-diamine 596133-38-9P 596133-40-3P, N-(5-tert-Butylisoxazol-3-yl)-N'-[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-1H-benzimidazole-2,5-diamine 596133-41-4P, N-(5-tert-Butylisoxazol-3-yl)-N'-[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596133-42-5P, N-(5-tert-Butylisoxazol-3-yl)-N'-[2-[[3-(methanesulfonyl)-4-methylphenyl]amino]pyrimidin-4-yl]-1-methyl-1H-benzimidazole-2,5-diamine 596133-43-6P, 5-[[4-[[2-[(5-tert-Butylisoxazol-3-yl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596133-44-7P, N-[(6-Fluoro-4H-benzo[1,3]dioxin-8-yl)methyl]-N'-[2-

[[3-(methanesulfonyl)-4-methylphenyl]amino]pyrimidin-4-yl]-1-methyl-1H-benzimidazole-2,5-diamine 596133-46-9P, N-(5-tert-Butylisoxazol-3-yl)-1-methyl-N'-[2-[[3-[(morpholin-4-yl)sulfonyl]phenyl]amino]-pyrimidin-4-yl]-1H-benzimidazole-2,5-diamine 596133-47-0P, 1-[1-Methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]-3-phenylurea 596133-48-1P, N-[1-Methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]benzamide **596133-49-2P**, N-[1-Methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]indoline-1-carboxamide 596133-50-5P, 1-(5-tert-Butylisoxazol-3-yl)-3-[1-methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]urea 596133-51-6P, N-[1-Methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]-2-phenylacetamide 596133-52-7P, N-[1-Methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]-1-phenylcyclopropanecarboxamide **596133-53-8P**, N-[1-Methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]isonicotinamide 596133-54-9P, N-[1-Methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]cyclohexanecarboxamide 596133-55-0P, 2-(Benzyloxy)-N-[1-methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]acetamide 596133-56-1P, 2-(3-Methylisoxazol-5-yl)-N-[1-methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]acetamide 596133-57-2P, 3-[(Dimethylamino)methyl]-N-[1-methyl-5-[methyl[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]benzamide 596133-58-3P, N-[5-[[3-[[4-[(Methanesulfonyl)methyl]phenyl]amino]phenyl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-2-thiophen-2-ylacetamide 596133-62-9P, 2-Fluoro-N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-5-trifluoromethylbenzamide 596133-64-1P, 3,4-Difluoro-N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]benzamide 596133-65-2P, N-[5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-3,5-bis(trifluoromethyl)benzamide 596133-66-3P, Cyclohexanecarboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596133-67-4P, N-[5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-3-methylbenzamide 596133-68-5P, N-[5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-4-methoxybenzamide 596133-69-6P, 2-(2-Chloro-5-trifluoromethylphenyl)-N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596133-70-9P, 2-[3,5-Bis(trifluoromethyl)phenyl]-N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596133-71-0P, N-[5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-2-[3-(trifluoromethylsulfanyl)phenyl]acetamide 596133-72-1P, 2-[2,4-Bis(trifluoromethyl)phenyl]-N-[5-[[2-[[3-

[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide
596133-73-2P, 2-(2-Fluoro-5-trifluoromethylphenyl)-N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide
596133-74-3P, 3H-Benzotriazole-5-carboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-75-4P, 3H-Benzimidazole-5-carboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-76-5P, Thiophene-2-carboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-77-6P, Thiophene-3-carboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-78-7P, N-[5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-2-thiophen-2-ylacetamide 596133-79-8P, 3-Methylthiophene-2-carboxylic acid N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-80-1P, Furan-3-carboxylic acid N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-81-2P, 3-Methylfuran-2-carboxylic acid N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-82-3P, 2-(2-Chloro-5-trifluoromethylphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide
596133-83-4P, N-[5-[[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-2-[3-(trifluoromethylsulfanyl)phenyl]acetamide 596133-84-5P, 2-(2-Fluoro-5-trifluoromethylphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide
596133-85-6P, N-[5-[[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-3,3-dimethylbutyramide 596133-86-7P, 2-Propylpentanoic acid N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-87-8P, N-[5-[[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]isobutyramide 596133-88-9P, Cyclopropanecarboxylic acid N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-89-0P, N-[5-[[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-4-methoxybenzamide 596133-90-3P, 4-Methoxy-N-[1-methyl-5-[methyl[2-[(4-methyl-3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]benzamide 596133-91-4P, Furan-2-carboxylic acid N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide
596133-92-5P, N-[1-Methyl-5-[methyl[2-[(4-methyl-3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]-2-thiophen-2-ylacetamide 596133-93-6P, 2-(2-Chloro-5-trifluoromethylphenyl)-N-[1-methyl-5-[methyl[2-[(4-methyl-3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]acetamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)
(drug candidate; preparation of benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** and their use as angiogenesis **inhibitors**)

IT 596133-94-7P, 4-Methoxy-N-[1-methyl-5-[methyl[2-[[3-[(morpholin-4-yl)sulfonyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]benzamide 596133-95-8P, N-[1-Methyl-5-[methyl[2-[[3-[(morpholin-4-yl)sulfonyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]-2-thiophen-2-ylacetamide 596133-96-9P, Thiophene-2-carboxylic acid N-[1-methyl-5-[methyl[2-[[3-[(morpholin-4-yl)sulfonyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]amide 596133-97-0P, Furan-2-carboxylic acid N-[1-methyl-5-[methyl[2-[[3-[(morpholin-4-yl)sulfonyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]amide 596133-98-1P, N-[5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-2-(3-methylisoxazol-5-yl)acetamide 596133-99-2P, Furan-2-carboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596134-00-8P, 2-(3-Methylisoxazol-5-yl)-N-[1-methyl-5-[methyl[2-[[3-[(morpholin-4-yl)sulfonyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]acetamide 596134-01-9P, 3-Methylfuran-2-carboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596134-02-0P, N-[1-Methyl-5-[methyl[2-[[3-[(4-methylpiperazin-1-yl)sulfonyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]-2-thiophen-2-ylacetamide 596134-03-1P, Thiophene-2-carboxylic acid N-[1-methyl-5-[methyl[2-[[3-[(4-methylpiperazin-1-yl)sulfonyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]amide 596134-04-2P, Furan-2-carboxylic acid N-[1-methyl-5-[methyl[2-[[3-[(4-methylpiperazin-1-yl)sulfonyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]amide 596134-05-3P, 2-(3-Methylisoxazol-5-yl)-N-[1-methyl-5-[methyl[2-[[3-[(4-methylpiperazin-1-yl)sulfonyl]phenyl]amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]acetamide 596134-06-4P, N-[5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-3,3-dimethylbutyramide 596134-07-5P, N-[5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]propionamide 596134-08-6P, Pentanoic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596134-09-7P, N-[5-[[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]butyramide 596134-10-0P, 1-(2,5-Difluorophenyl)cyclopropanecarboxylic acid N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596134-11-1P, 1-(4-Chlorophenyl)cyclopropanecarboxylic acid N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596134-12-2P, 2-(4-Fluorophenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-13-3P, 2-[3,5-Bis(trifluoromethyl)phenyl]-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-14-4P, 2-(3,4-Dichlorophenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide

596134-15-5P, 1-(2,5-Difluorophenyl)cyclopropanecarboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596134-16-6P, 2-(2,5-Difluorophenyl)-N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-17-7P, 2-(3,4-Dichlorophenyl)-N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-18-8P, 1-(2,5-Difluorophenyl)cyclopropanecarboxylic acid N-[5-[[2-[[5-(ethanesulfonyl)-2-methoxyphenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596134-19-9P, 2-(2,5-Difluorophenyl)-N-[5-[[2-[[5-(ethanesulfonyl)-2-methoxyphenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-20-2P, 1-(3,4-Dichlorophenyl)cyclopropanecarboxylic acid N-[5-[[2-[[5-(ethanesulfonyl)-2-methoxyphenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596134-21-3P, 2-(3,4-Dichlorophenyl)-N-[5-[[2-[[5-(ethanesulfonyl)-2-methoxyphenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-22-4P, 1-(2,5-Difluorophenyl)cyclopropanecarboxylic acid N-[1-methyl-5-[methyl[2-[(4-methyl-3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]amide 596134-23-5P, 1-(3,4-Dichlorophenyl)cyclopropanecarboxylic acid N-[1-methyl-5-[methyl[2-[(4-methyl-3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]amide 596134-24-6P, 2-(3,4-Dichlorophenyl)-N-[1-methyl-5-[methyl[2-[(4-methyl-3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]acetamide 596134-25-7P, 2-(2,3-Dimethoxyphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-26-8P, 2-(2-Methoxyphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-27-9P, 2-(3-Methoxyphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-28-0P, 2-(4-Methoxyphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-29-1P, 2-(2-Fluorophenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-30-4P, 2-(3-Fluorophenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-31-5P, 2-(2,5-Difluorophenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-32-6P, 2-(2,3-Difluorophenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-33-7P, 2-(3,4-Dimethoxyphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-34-8P, 2-(2,5-Difluorophenyl)-N-[1-methyl-5-[methyl[2-[(4-methyl-3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]acetamide 596134-35-9P, 1-(3,4-Dichlorophenyl)cyclopropanecarboxylic acid N-[5-[[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]amide 596134-36-0P, 2-(2-Chlorophenyl)-N-[5-[[2-[[4-

[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-37-1P, 2-(3-Chlorophenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-38-2P, 2-(4-Chlorophenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-39-3P, 2-(3,5-Dimethoxyphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-40-6P, 2-(2,5-Dimethoxyphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-41-7P, 2-(2,5-Dichlorophenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-42-8P, N-[5-[[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-3-methyl-2-phenylbutyramide 596134-43-9P, 2-(2,5-Dimethylphenyl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-44-0P, N-[5-[[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-2-phenylisobutyramide 596134-45-1P, 2-(Benzo[1,3]dioxol-5-yl)-N-[5-[[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]acetamide 596134-46-2P, N-Isopropyl-N'-methyl-1-methyl-N'-[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1H-benzimidazole-2,5-diamine 596134-47-3P, 1-[4-[[4-[Methyl[1-methyl-2-(methylamino)-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596134-48-4P, N-Benzyl-N'-methyl-1-methyl-N'-[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1H-benzimidazole-2,5-diamine 596134-49-5P, 3-[[4-[(2-Benzylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-50-8P, 5-[[4-[(2-Benzylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596134-51-9P, 1-[4-[[4-[(2-Benzylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596134-52-0P, 2-[4-[[4-[(2-Benzylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide 596134-53-1P, 3-[[4-[[2-[(4-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-54-2P, 5-[[4-[[2-[(4-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596134-55-3P, N-(4-Fluorobenzyl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino)pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596134-56-4P, 1-[4-[[4-[[2-[(4-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596134-57-5P, 2-[4-[[4-[[2-[(4-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide 596134-58-6P, 3-[[4-[[2-[(4-Methoxybenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-59-7P, 5-[[4-[[2-[(4-Methoxybenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596134-60-0P, N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N-(4-

methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596134-61-1P, 1-[4-[[4-[[2-[(4-Methoxybenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596134-62-2P, 2-[4-[[4-[[2-[(4-Methoxybenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide 596134-63-3P, 5-[[4-[[2-[(3-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596134-64-4P, 3-[[4-[[2-[(3-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-65-5P, N-(3-Fluorobenzyl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596134-66-6P, 1-[4-[[4-[[2-[(3-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596134-67-7P, 2-[4-[[4-[[2-[(3-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide 596134-68-8P, 3-[[4-[[2-[(4-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-69-9P, 5-[[4-[[2-[(4-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596134-70-2P, 2-[4-[[4-[[2-[(4-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide 596134-71-3P, N-(4-Chlorobenzyl)-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596134-72-4P, 3-[[4-[(2-Benzylamino-1-ethyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-73-5P, 5-[[4-[(2-Benzylamino-1-ethyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596134-74-6P, N-Benzyl-1-ethyl-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N'-methyl-1H-benzimidazole-2,5-diamine 596134-75-7P, 1-[4-[[4-[(2-Benzylamino-1-ethyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596134-76-8P, 3-[[4-[[2-[(2-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]methyl]benzenesulfonamide 596134-77-9P, 5-[[4-[[2-[(2-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596134-78-0P, 1-[4-[[4-[[2-[(2-Fluorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596134-79-1P, 2-[4-[[4-[(2-Benzylamino-1-ethyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide 596134-80-4P, 3-[[4-[Methyl[1-methyl-2-[(1-phenylethyl)amino]-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-81-5P, 2-Methyl-5-[[4-[methyl[1-methyl-2-[(1-phenylethyl)amino]-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-82-6P, N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine 596134-83-7P, 1-[4-[[4-[Methyl[1-methyl-2-[(1-phenylethyl)amino]-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596134-84-8P, 3-[[4-[[2-[(3-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-85-9P, 1-[4-[[4-[[2-[(4-Chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596134-86-0P, Methanesulfonic

acid 3-[[4-[[2-[(4-chlorobenzyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]phenyl ester 596134-87-1P, N'-[2-[[4-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596134-88-2P, N'-[2-[[3-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596134-89-3P, N'-[2-[[4-[1-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596134-90-6P, N'-[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596134-91-7P, N-Benzyl-N'-[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596134-92-8P, N'-[2-[[3-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine 596134-93-9P, N'-[2-[[3-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine 596134-94-0P, N'-[2-[[4-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine 596134-95-1P, 2-Methyl-5-[[4-[methyl[1-methyl-2-[(4-methylbenzyl)amino]-1H-benzimidazol-5-yl]amino]pyrimidin-2-yl]amino]benzenesulfonamide 596134-96-2P, N'-[2-[[4-[(Methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine 596134-97-3P, N'-[2-[[4-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine 596134-98-4P, N'-[2-[[3-[2-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine 596134-99-5P, N'-[2-[[4-[1-(Methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine 596135-00-1P, Phenyl[1-Methyl-5-[methyl[2-[(3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]carbamic acid tert-butyl ester 596135-01-2P, (Phenyl)[1-Methyl-5-[methyl[2-[(4-methyl-3-sulfamoylphenyl)amino]pyrimidin-4-yl]amino]-1H-benzimidazol-2-yl]carbamic acid tert-butyl ester 596135-02-3P, 5-[[4-[[2-[(4-tert-Butylphenyl)amino]-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596135-03-4P, 3-[[4-[[2-(Isopropylamino)-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596135-04-5P, 5-[[4-[[2-(Isopropylamino)-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596135-05-6P, 2-[4-[[4-[(2-Isopropylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide 596135-06-7P, Methanesulfonic acid 4-[[4-[(2-isopropylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl ester 596135-07-8P, Methanesulfonic acid 3-[[4-[(2-isopropylamino-1-methyl-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl ester 596135-08-9P
, N-Isopropyl-N'-[2-[[3-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596135-09-0P, 3-[[4-[(1-Methyl-2-phenethylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596135-10-3P, 2-Methyl-5-[[4-[methyl(1-methyl-2-phenethylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596135-11-4P, 1-[4-[[4-[Methyl(1-methyl-2-phenethylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide

596135-12-5P, 2-[4-[[4-[Methyl(1-methyl-2-phenethylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]phenyl]ethanesulfonic acid methylamide 596135-13-6P, N-tert-Butyl-N'-[2-[[4-[(methanesulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596135-14-7P, 5-[[4-[[2-(Cyclohexylamino)-1-methyl-1H-benzimidazol-5-yl](methyl)amino]pyrimidin-2-yl]amino]-2-methylbenzenesulfonamide 596135-15-8P, N-Cyclohexyl-N'-[2-[[3-[2-(methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596135-16-9P, N-Cyclohexyl-N'-[2-[[4-[2-(methanesulfonyl)ethyl]phenyl]amino]pyridin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596135-17-0P, N-Cyclohexyl-N'-[2-[[4-[1-(methanesulfonyl)ethyl]phenyl]amino]pyrimidin-4-yl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596135-18-1P, 2-Methyl-5-[[4-[methyl(1-methyl-2-methylamino-1H-benzimidazol-5-yl)amino]pyrimidin-2-yl]amino]benzenesulfonamide 596135-19-2P, 1-[4-[[4-[(1-Ethyl-2-methylamino-1H-benzimidazol-5-yl)(methyl)amino]pyrimidin-2-yl]amino]phenyl]methanesulfonamide 596135-20-5P, 2-Fluoro-N-[5-[[3-[[3-[(methanesulfonyl)methyl]phenyl]amino]phenyl](methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-5-trifluoromethylbenzamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** and their use as angiogenesis **inhibitors**)

IT 141350-03-0, VEGFR1 kinase 144638-77-7, VEGFR3 kinase 148047-29-4, TIE-2 kinase 150977-45-0, VEGFR2 kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**inhibitors**; preparation of benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** and their use as angiogenesis **inhibitors**)

IT 62-53-3, Aniline, reactions 63-74-1, 4-Aminobenzenesulfonamide 65-85-0, Benzoic acid, reactions 79-09-4, Propionic acid, reactions 79-31-2, Isobutyric acid 88-13-1, Thiophene-3-carboxylic acid 88-14-2, Furan-2-carboxylic acid 98-16-8, 3-Trifluoromethylphenylamine 98-18-0, 3-Aminobenzenesulfonamide 99-66-1, 2-Propylpentanoic acid 99-99-0, 4-Nitrotoluene 100-09-4, 4-Methoxybenzoic acid 103-72-0, Phenyl isothiocyanate 107-92-6, Butyric acid, reactions 109-01-3, N-Methylpiperazine 109-52-4, Pentanoic acid, reactions 110-91-8, Morpholine, reactions 121-51-7, 3-Nitrobenzenesulfonyl chloride 369-36-8, 2-Fluoro-5-nitroaniline 455-14-1, 4-(Trifluoromethyl)aniline 488-93-7, Furan-3-carboxylic acid 527-72-0, Thiophene-2-carboxylic acid 590-42-1, tert-Butyl isothiocyanate 622-59-3, p-Tolyl isothiocyanate 622-78-6, Benzyl isothiocyanate 785-56-8, 3,5-Bis(trifluoromethyl)benzoyl chloride 1070-83-3, 3,3-Dimethylbutyric acid 1122-82-3, Cyclohexyl isothiocyanate 1544-68-9, 4-Fluorophenyl isothiocyanate 1711-06-4, 3-Methylbenzoyl chloride 1759-53-1, Cyclopropanecarboxylic acid 1918-77-0, Thiophen-2-ylacetic acid 2015-19-2, 5-Amino-2-chlorobenzenesulfonamide 2253-73-8, Isopropyl isothiocyanate 2257-09-2, Phenethyl isothiocyanate 2284-20-0, p-Methoxyphenyl isothiocyanate 2719-27-9, Cyclohexanecarboxylic acid chloride 2740-88-7, 4-Fluorobenzyl isothiocyanate 3694-45-9, 4-Chlorobenzyl isothiocyanate 3694-46-0, 4-Methylbenzyl isothiocyanate 3694-57-3, 4-Methoxybenzyl isothiocyanate 3694-58-4, 3-Chlorobenzyl isothiocyanate 3934-20-1, 2,4-Dichloropyrimidine 4403-84-3,

1-(4-Aminophenyl)methanesulfonamide 4412-96-8, 3-Methylfuran-2-carboxylic acid 4478-92-6, 1-Phenylethyl isothiocyanate 6973-09-7, 5-Amino-2-methylbenzenesulfonamide 15788-16-6, 3H-Benzimidazole-5-carboxylic acid 19241-24-8, p-tert-Butylphenyl isothiocyanate 19668-85-0, 3-Methylisoxazol-5-ylacetic acid 22893-39-6, (2-Chloro-5-trifluoromethylphenyl)acetic acid 23806-24-8, 3-Methylthiophene-2-carboxylic acid 23814-12-2, 3H-Benzotriazole-5-carboxylic acid 24176-70-3, 4-[(Methylsulfonyl)methyl]aniline 24424-99-5, Di-tert-butyl dicarbonate 24690-19-5, Methanesulfonic acid 4-aminophenyl ester 38164-50-0, Methanesulfonic acid 3-aminophenyl ester 55809-36-4, (5-tert-Butylisoxazol-3-yl)amine 63351-94-0, 3-Fluorobenzyl isothiocyanate 64382-80-5, 2-Fluorobenzyl isothiocyanate 76903-88-3, 3,4-Difluorobenzoyl chloride 85068-33-3, 3,5-Bis(trifluoromethyl)phenylacetic acid 98623-16-6, 2-(4-Aminophenyl)ethanesulfonic acid methylamide 177952-39-5, 2,4-Bis(trifluoromethyl)phenylacetic acid 183560-63-6, Sulfamic acid 4-aminophenyl ester 207981-46-2, 2-Fluoro-5-trifluoromethylbenzoyl chloride 220227-66-7, 2-Fluoro-5-trifluoromethylphenylacetic acid 239080-04-7, [3-(Trifluoromethylsulfanyl)phenyl]acetic acid 261925-02-4, 3-[(Methanesulfonyl)methyl]phenylamine 596131-24-7, [4-[2-(Methanesulfonyl)ethyl]phenyl]amine 596131-25-8, [3-[2-(Methanesulfonyl)ethyl]phenyl]amine 596131-26-9, [4-[1-(Methanesulfonyl)ethyl]phenyl]amine 596132-57-9, Methanesulfonic acid 3-aminophenyl ester hydrochloride 596132-81-9, [3-[1-(Methanesulfonyl)ethyl]phenyl]amine hydrochloride 596133-39-0, N-(5-tert-Butylisoxazol-3-yl)-N'-(2-chloropyrimidin-4-yl)-1-methyl-1H-benzimidazole-2,5-diamine 596133-45-8, N'-(2-Chloropyrimidin-4-yl)-N-[(6-fluoro-4H-benzo[1,3]dioxin-8-yl)methyl]-1H-benzimidazole-2,5-diamine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** and their use as angiogenesis **inhibitors**)

IT 1709-59-7P, 4-Amino-N,N-dimethylbenzenesulfonamide 5601-09-2P, 1-Methyl-5-nitro-1H-benzimidazol-2-amine 15965-66-9P, 2-Chloro-1-methyl-5-nitro-1H-benzimidazole 22184-97-0P, 3-[(Morpholin-4-yl)sulfonyl]phenylamine 41939-61-1P, N-Methyl-4-nitrobenzene-1,2-diamine 46035-60-3P, 1-Methyl-1H-benzimidazole-2,5-diamine 66668-41-5P, N1-Ethyl-4-nitrobenzene-1,2-diamine 77456-73-6P, 1-Methyl-2-(methylsulfanyl)-5-nitro-1H-benzimidazole 91619-33-9P, 4-(3-Nitrobenzenesulfonyl)morpholine 436095-35-1P, 3-[(4-Methylpiperazin-1-yl)sulfonyl]phenylamine 596130-79-9P 596130-80-2P, N-Isopropyl-1-methyl-5-nitro-1H-benzimidazol-2-amine 596130-81-3P, N-Isopropyl-1-methyl-1H-benzimidazole-2,5-diamine 596130-82-4P, N'-(2-Chloropyrimidin-4-yl)-N-isopropyl-1-methyl-1H-benzimidazole-2,5-diamine 596130-83-5P 596130-84-6P, Methyl(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596130-85-7P, N-Methyl-1-methyl-1H-benzimidazole-2,5-diamine 596130-86-8P, N-Benzyl-N'-(2-chloropyrimidin-4-yl)-N'-methyl-1-methyl-1H-benzimidazole-2,5-diamine 596130-87-9P, N-Benzyl-1-methyl-5-nitro-1H-benzimidazol-2-amine 596130-88-0P, N-Benzyl-1-methyl-1H-benzimidazole-2,5-diamine 596130-89-1P, tert-Butyl [5-[(2-chloropyrimidin-4-yl)(methyl)amino]-1-methyl-1H-benzimidazol-2-yl](phenyl)carbamate 596130-90-4P, 1-Methyl-5-nitro-N-phenyl-1H-benzimidazol-2-amine 596130-91-5P, tert-Butyl (1-methyl-5-nitro-1H-benzimidazol-2-yl)phenylcarbamate 596130-92-6P, tert-Butyl (5-amino-1-methyl-1H-benzimidazol-2-yl)phenylcarbamate 596130-93-7P, tert-Butyl [5-[(2-

chloropyrimidin-4-yl)amino]-1-methyl-1H-benzimidazol-2-yl](phenyl)carbamate 596130-94-8P, N-Methoxy-2-methyl-5-nitrobenzenesulfonamide 596130-95-9P, 5-Amino-N-methoxy-2-methylbenzenesulfonamide 596130-96-0P, N'-(2-Chloropyrimidin-4-yl)-N-(4-fluorobenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596130-97-1P, (4-Fluorobenzyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596130-98-2P, N-(4-Fluorobenzyl)-1-methyl-1H-benzimidazole-2,5-diamine 596130-99-3P, N'-(2-Chloropyrimidin-4-yl)-N-(4-methoxybenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596131-00-9P, (4-Methoxybenzyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-01-0P, N-(4-Methoxybenzyl)-1-methyl-1H-benzimidazole-2,5-diamine 596131-02-1P, N'-(2-Chloropyrimidin-4-yl)-N-(3-fluorobenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596131-03-2P, (3-Fluorobenzyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-04-3P, N-(3-Fluorobenzyl)-1-methyl-1H-benzimidazole-2,5-diamine 596131-05-4P, N-(4-Chlorobenzyl)-N'-(2-chloropyrimidin-4-yl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596131-06-5P, (4-Chlorobenzyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-07-6P, N-(4-Chlorobenzyl)-1-methyl-1H-benzimidazole-2,5-diamine 596131-08-7P, N-Benzyl-N'-(2-chloropyrimidin-4-yl)-1-ethyl-N'-methyl-1H-benzimidazole-2,5-diamine 596131-09-8P, Benzyl(1-ethyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-10-1P, N-Benzyl-1-ethyl-1H-benzimidazole-2,5-diamine 596131-11-2P, N'-(2-Chloropyrimidin-4-yl)-N-(2-fluorobenzyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596131-12-3P, (2-Fluorobenzyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-13-4P, N-(2-Fluorobenzyl)-1-methyl-1H-benzimidazole-2,5-diamine 596131-14-5P, N'-(2-Chloropyrimidin-4-yl)-1-methyl-N'-methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine 596131-15-6P, (1-Methyl-5-nitro-1H-benzimidazol-2-yl)(1-phenylethyl)amine 596131-16-7P, 1-Methyl-N-(1-phenylethyl)-1H-benzimidazole-2,5-diamine 596131-17-8P 596131-18-9P, (4-Methylbenzyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-19-0P, 1-Methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine 596131-20-3P, N'-(2-Chloropyrimidin-4-yl)-1-methyl-N'-methyl-N-(4-methylbenzyl)-1H-benzimidazole-2,5-diamine 596131-21-4P, N-(3-Chlorobenzyl)-N'-(2-chloropyrimidin-4-yl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596131-22-5P, (3-Chlorobenzyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-23-6P, N-(3-Chlorobenzyl)-1-methyl-1H-benzimidazole-2,5-diamine 596131-27-0P, [5-[(2-Chloropyrimidin-4-yl)(methyl)amino]-1-methyl-1H-benzimidazol-2-yl](4-fluorophenyl)carbamic acid tert-butyl ester 596131-28-1P, (4-Fluorophenyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-29-2P, (5-Amino-1-methyl-1H-benzimidazol-2-yl)(4-fluorophenyl)carbamic acid tert-butyl ester 596131-30-5P, [5-[(2-Chloropyrimidin-4-yl)amino]-1-methyl-1H-benzimidazol-2-yl](4-fluorophenyl)carbamic acid tert-butyl ester 596131-31-6P, [5-[(2-Chloropyrimidin-4-yl)(methyl)amino]-1-methyl-1H-benzimidazol-2-yl]-p-tolylcarbamic acid tert-butyl ester 596131-32-7P, (1-Methyl-5-nitro-1H-benzimidazol-2-yl)-p-tolylamine 596131-33-8P, (1-Methyl-5-nitro-1H-benzimidazol-2-yl)-p-tolylcarbamic acid tert-butyl ester 596131-34-9P, (5-Amino-1-methyl-1H-benzimidazol-2-yl)-p-tolylcarbamic acid tert-butyl ester 596131-35-0P, [5-[(2-Chloropyrimidin-4-yl)amino]-1-methyl-1H-benzimidazol-2-yl]-p-tolylcarbamic acid tert-butyl ester 596131-36-1P, (4-tert-Butylphenyl)[5-[(2-chloropyrimidin-4-yl)(methyl)amino]-1-methyl-1H-benzimidazol-2-yl]carbamic acid tert-butyl ester 596131-37-2P, (4-tert-Butylphenyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-38-3P, (4-tert-Butylphenyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)carbamic acid tert-butyl ester 596131-39-4P,

(5-Amino-1-methyl-1H-benzimidazol-2-yl)(4-tert-butylphenyl)carbamic acid tert-butyl ester 596131-40-7P, (4-tert-Butylphenyl)[5-[(2-chloropyrimidin-4-yl)amino]-1-methyl-1H-benzimidazol-2-yl]carbamic acid tert-butyl ester 596131-41-8P, N'-(2-Chloropyrimidin-4-yl)-N-(4-methoxyphenyl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596131-42-9P, (4-Methoxyphenyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-43-0P, (4-Methoxyphenyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)carbamic acid tert-butyl ester 596131-44-1P, (5-Amino-1-methyl-1H-benzimidazol-2-yl)(4-methoxyphenyl)carbamic acid tert-butyl ester 596131-45-2P, [5-[(2-Chloropyrimidin-4-yl)amino]-1-methyl-1H-benzimidazol-2-yl](4-methoxyphenyl)carbamic acid tert-butyl ester 596131-46-3P, [5-[(2-Chloropyrimidin-4-yl)(methyl)amino]-1-methyl-1H-benzimidazol-2-yl](4-methoxyphenyl)carbamic acid tert-butyl ester 596131-47-4P, N'-(2-Chloropyrimidin-4-yl)-1-methyl-N'-methyl-N-phenethyl-1H-benzimidazole-2,5-diamine 596131-48-5P, (1-Methyl-5-nitro-1H-benzimidazol-2-yl)(phenethyl)amine 596131-49-6P, 1-Methyl-N-phenethyl-1H-benzimidazole-2,5-diamine 596131-50-9P, N-tert-Butyl-N'-(2-chloropyrimidin-4-yl)-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596131-51-0P, (tert-Butyl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-52-1P, N-tert-Butyl-1-methyl-1H-benzimidazole-2,5-diamine 596131-53-2P, N'-(2-Chloropyrimidin-4-yl)-N-cyclohexyl-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596131-54-3P, Cyclohexyl(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-55-4P, N-Cyclohexyl-1-methyl-1H-benzimidazole-2,5-diamine 596131-56-5P, N'-(2-Chloropyrimidin-4-yl)-1-ethyl-N,N'-dimethyl-1H-benzimidazole-2,5-diamine 596131-57-6P, (1-Ethyl-5-nitro-1H-benzimidazol-2-yl)methylamine 596131-58-7P, 1-Ethyl-N-methyl-1H-benzimidazole-2,5-diamine 596131-59-8P, 1-Methyl-5-nitro-1,3-dihydrobenzimidazole-2-thione 596131-60-1P, [1-Methyl-2-(methylsulfanyl)-1H-benzimidazol-5-yl]amine 596131-61-2P, (2-Chloropyrimidin-4-yl)(methyl)[1-methyl-2-(methylsulfanyl)-1H-benzimidazol-5-yl]amine 596131-62-3P, N-[4-[(Methanesulfonyl)methyl]phenyl]-N'-methyl-N'-[1-methyl-2-(methylsulfanyl)-1H-benzimidazol-5-yl]pyrimidine-2,4-diamine 596131-63-4P, N'-[2-(Methanesulfonyl)-1-methyl-1H-benzimidazol-5-yl]-N-[4-[(methanesulfonyl)methyl]phenyl]-N'-methylpyrimidine-2,4-diamine 596131-64-5P, (5-tert-Butylisoxazol-3-yl)(1-methyl-5-nitro-1H-benzimidazol-2-yl)amine 596131-65-6P 596131-66-7P 596131-67-8P 596131-68-9P 596131-69-0P, 1-Methyl-5-nitro-1H-benzimidazol-2-amine hydrobromide 596131-70-3P, N'-(2-Chloropyrimidin-4-yl)-1-methyl-1H-benzimidazole-2,5-diamine 596131-71-4P, tert-Butyl [5-[(2-chloropyrimidin-4-yl)amino]-1-methyl-1H-benzimidazol-2-yl]carbamate 596131-72-5P, tert-Butyl [5-[(2-chloropyrimidin-4-yl)(methyl)amino]-1-methyl-1H-benzimidazol-2-yl]carbamate 596131-73-6P, N'-Methyl-1-methyl-N'-[2-[[4-[(methylsulfonyl)methyl]phenyl]amino]pyrimidin-4-yl]-1H-benzimidazole-2,5-diamine 596131-74-7P, (1-Methyl-5-nitro-1H-benzimidazol-2-yl)(4-fluorophenyl)carbamic acid tert-butyl ester 596133-27-6P, (1-Methyl-5-nitro-1H-benzimidazol-2-yl)(3-trifluoromethylphenyl)amine 596133-29-8P, (1-Methyl-5-nitro-1H-benzimidazol-2-yl)(3-trifluoromethylphenyl)carbamic acid 1,1-dimethylethyl ester 596133-31-2P, (5-Amino-1-methyl-1H-benzimidazol-2-yl)(3-trifluoromethylphenyl)carbamic acid 1,1-dimethylethyl ester 596133-33-4P, [5-[(2-Chloropyrimidin-4-yl)(methyl)amino]-1-methyl-1H-benzimidazol-2-yl](3-trifluoromethylphenyl)carbamic acid 1,1-dimethylethyl ester 596133-59-4P, N'-[3-[[4-[(Methanesulfonyl)methyl]phenyl]amino]phenyl]-1-methyl-N'-methyl-1H-benzimidazole-2,5-diamine 596133-60-7P, N'-[3-[[3-[(Methanesulfonyl)methyl]phenyl]amino]phenyl]-1-methyl-N'-methyl-

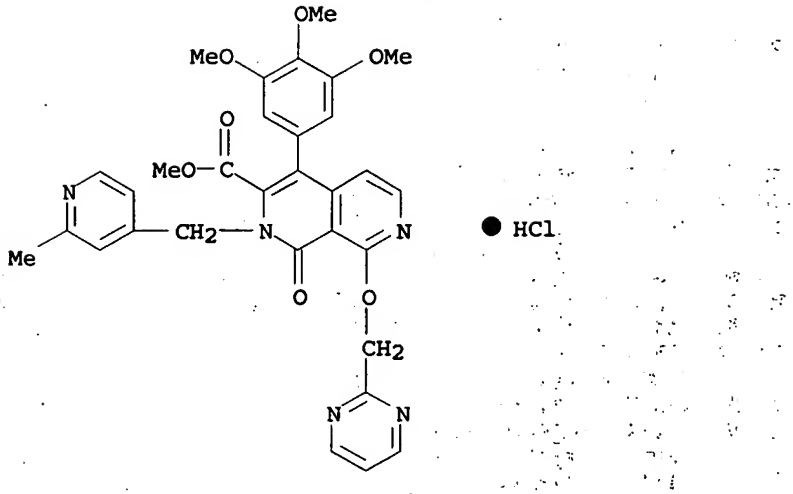
1H-benzimidazole-2,5-diamine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of benzimidazolylamino arylamino pyrimidine TIE-2 and/or VEGFR **inhibitors** and their use as angiogenesis **inhibitors**)

L138 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2002:894047 Document No. 139:17326 Enzymological and pharmacological profile of T-0156, a potent and selective phosphodiesterase type 5 inhibitor. Mochida, Hideki; Takagi, Michino; Inoue, Hirotaka; Noto, Tsunehisa; Yano, Koji; Fujishige, Kotomi; Sasaki, Takashi; Yuasa, Keizo; Kotera, Jun; Omori, Kenji; Kikkawa, Kohei (Discovery Research Laboratory, Tanabe Seiyaku Co., Ltd., 2-2-50, Kawagishi, Toda, Saitama, 335-8505, Japan). European Journal of Pharmacology, 456(1-3), 91-98 (English) 2002. CODEN: EJPHAZ. ISSN: 0014-2999. Publisher: Elsevier Science B.V..

AB The enzymol. and pharmacol. properties of 2-(2-Methylpyridin-4-yl)methyl-4-(3,4,5-trimethoxyphenyl)-8-(pyrimidin-2-yl)methoxy-1,2-dihydro-1-oxo-2,7-naphthyridine-3-carboxylic acid Me ester hydrochloride (T-0156), a new phosphodiesterase type 5 inhibitor, were studied in vitro and in vivo. The inhibitory effects of T-0156 on six phosphodiesterase isoenzymes isolated from canine tissues were investigated. T-0156 specifically inhibited the hydrolysis of cGMP (cGMP) by phosphodiesterase type 5, at low concentration (IC50 = 0.23 nM), in a competitive manner. T-0156 also inhibited phosphodiesterase type 6 with IC50 value of 56 nM, which was 240-fold higher than that for inhibition of phosphodiesterase type 5. T-0156 had low potencies against phosphodiesterase types 1, 2, 3, and 4 (IC50>10 μM). In the isolated rabbit corpus cavernosum, T-0156 at 10 and 100 nM increased cGMP levels (100 nM T-0156-treated: 6.0 ± 1.5 pmol/mg protein, vehicle-treated: 1.1 ± 0.4 pmol/mg protein, P <0.05), causing relaxation of the tissue. T-0156 at 1 to 100 nM potentiated the elec. field stimulation-induced relaxation in the isolated rabbit corpus cavernosum in a concentration-dependent manner (100 nM T-0156-treated: 76.9 ± 19.8%, vehicle-treated: 12.3 ± 10.1%, P <0.05). Intraduodenal administration of T-0156 at 100 to 1000 μg/kg potentiated the pelvic nerve stimulation-induced tumescence in anesthetized dogs (1000 μg/kg T-0156-treated: 279.0 ± 38.4%, vehicle-treated: 9.8 ± 4.5%, P <0.05). These results suggested that T-0156 enhanced the nitric oxide (NO)/cGMP pathway, probably through blockade of phosphodiesterase type 5 in vitro and in vivo exptl. conditions. The present study clearly showed that T-0156 is a potent and highly selective phosphodiesterase type 5 inhibitor, which is a useful tool for pharmacol. studies in vitro and in vivo.

IT **324572-93-2**, T 0156
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(enzymol. and pharmacol. profile of T-0156, a potent and selective phosphodiesterase type 5 inhibitor)

RN 324572-93-2 HCAPLUS
CN 2,7-Naphthyridine-3-carboxylic acid, 1,2-dihydro-2-[(2-methyl-4-pyridinyl)methyl]-1-oxo-8-(2-pyrimidinylmethoxy)-4-(3,4,5-trimethoxyphenyl)-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



CC 1-8 (Pharmacology)
Section cross-reference(s): 7
IT 7665-99-8, CGMP 9036-21-9, Phosphodiesterase 3 9040-59-9, Phosphodiesterase 2 9068-52-4, Phosphodiesterase type 5 10102-43-9, Nitric oxide, biological studies 78990-62-2, Calpain 79079-06-4, EGF receptor **tyrosine kinase** 137632-07-6, ERK 1 protein kinase 141436-78-4, Protein kinase C 361540-77-4, Calcineurin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(enzymol. and pharmacol. profile of T-0156, a potent and selective phosphodiesterase type 5 inhibitor)
IT **324572-93-2**, T 0156
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(enzymol. and pharmacol. profile of T-0156, a potent and selective phosphodiesterase type 5 inhibitor)

L138 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2002:158405 Document No. 136:200113 3-Cyanoquinolines, 3-cyano-1,6-naphthyridines, and 3-cyano-1,7-naphthyridines as protein kinase **inhibitors.** Boschelli, Diane Harris; Wang, Yanong; Boschelli, Frank Charles; Berger, Dan Maarten; Zhang, Nan; Powell, Dennis William; Ye, Fei; Yamashita, Ayako; Demorin, Frenel Fils; Wu, Biqi; Tsou, Hwei-ru; Overbeek-Klumpers, Elsebe Geraldine; Wissner, Allan (American Home Products Corporation, USA; Wyeth). U.S. Pat. Appl. Publ. US 2002026052 A1 20020228, 172 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-820070 20010328. PRIORITY: US 2000-PV219322 20000328.
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

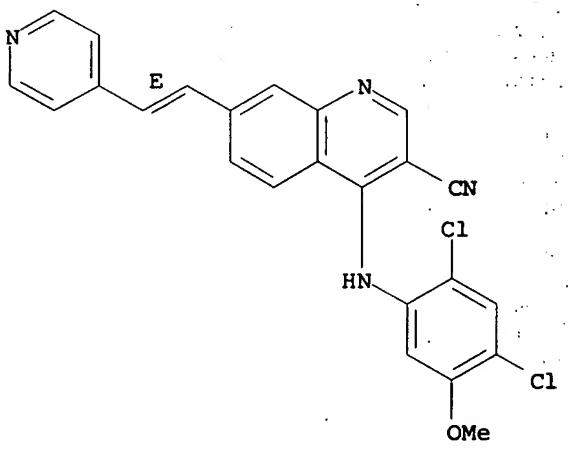
AB Title compds. I [X = N(H) or substituted derivs., O, SO0-2; n = 0-1; A = divalent (un)substituted alkyl, C(O), C(O)-alkyl, alkyl-C(O), cycloalkyl, or **absent**; T, Z = C, N provided that both T and Z are not N; R1 = cycloalkyl, 5-6 atom

(hetero)aryl ring containing 0-4 heteroatoms, 8-20 atom bicyclic heteroaryl ring containing 1-4 heteroatoms, etc.; R2a-c = H, aryl, CH2-aryl, O-aryl, SO0-2-aryl, NO2, SH, etc.; R3 = alkenyl, alkynyl, (hetero)aryl; R4 = (un)substituted alkyl, alkenyl, alkynyl, (hetero)aryl] were prepared Over 500 synthetic examples were disclosed, including some combinatorial prepns., and addnl. reference examples. E.g., 4-[(4-bromo-2-thienyl)methyl]morpholine reacted with bis(pinacolato)diboron [DMSO, PdCl2(dppf), KOAc] to give dioxaborolane II. II was coupled to 7-bromo-4-[3-chloro-4-[(1-methyl-1H-imidazol-2-yl)sulfanyl]anilino]-3-quinolinecarbonitrile [preparation given; diglyme, Pd(PPh3)4, NaHCO3] to yield invention compound III as a yellow solid after purification III had IC50 = 6.0 nM for Raf1 kinase and **inhibited** the human adenocarcinoma CaCo-2 cell line with IC50 = 1.9, 0.78 (2 trials). I are useful as antineoplastic agents, and in the treatment of osteoporosis and polycystic kidney disease.

IT **364787-70-2P 364787-73-5P 364787-77-9P 364789-53-7P**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

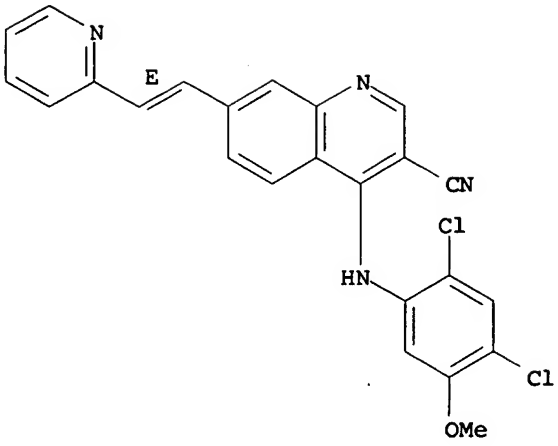
RN 364787-70-2 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(2,4-dichloro-5-methoxyphenyl)amino]-7-[(1E)-2-(4-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



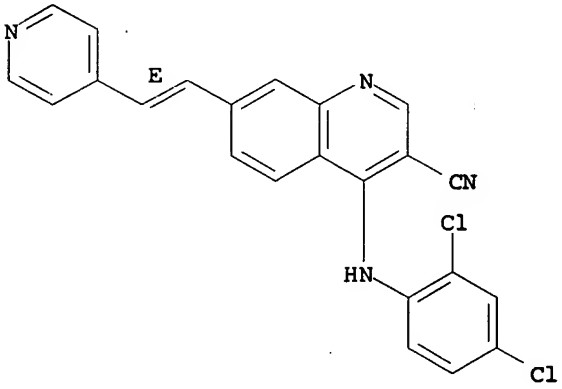
RN 364787-73-5 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(2,4-dichloro-5-methoxyphenyl)amino]-7-[(1E)-2-(2-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

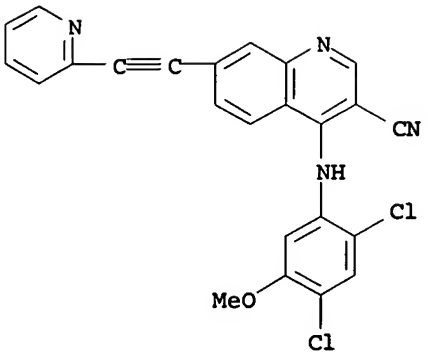


RN 364787-77-9 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(2,4-dichlorophenyl)amino]-7-[(1E)-2-(4-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 364789-53-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(2,4-dichloro-5-methoxyphenyl)amino]-7-(2-pyridinylethynyl)- (9CI) (CA INDEX NAME)



IC ICM C07D471-02
INCL 546122000
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 7, 28
ST cyanoquinoline cyanonaphthyridine prepn protein kinase **inhibitor**; quinolinecarbonitrile prepn antineoplastic antiproliferative treatment osteoporosis polycystic kidney disease; combinatorial library cyanoquinoline protein kinase **inhibitor**
IT Intestine, neoplasm
(colon, polyp, treatment; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT Kidney, disease
(polycystic, treatment; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT Combinatorial library
(precursor; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT Antiarthritics
Antitumor agents
Antiviral agents
Cytotoxic agents
Immunosuppressants
(preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT Artery, disease
(restenosis, treatment; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT Osteoporosis
(therapeutic agents; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT Autoimmune disease
Rheumatoid arthritis
Sepsis
Transplant rejection
(treatment; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT Vascular endothelial growth factor receptors
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(type VEGFR-1, **inhibitors**; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT 364794-19-4P 364794-87-6P
RL: BYP (Byproduct); PREP (Preparation)
(byproduct; preparation of cyanoquinolines and cyanonaphthyridines

as protein kinase **inhibitors**)

IT 364794-11-6P 364794-14-9P 364794-16-1P
RL: BYP (Byproduct); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(byproduct; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 364788-53-4P 364795-34-6P
RL: BSU (Biological study, unclassified); CPN (Combinatorial preparation); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 364789-63-9P 364789-65-1P 364789-67-3P 364789-69-5P
364789-71-9P 364789-73-1P 364789-75-3P 364789-77-5P
364789-79-7P 364789-81-1P 364789-84-4P 364789-86-6P
364789-88-8P 364789-91-3P 364789-94-6P 364789-97-9P
364789-99-1P 364790-01-2P 364790-06-7P 364790-09-0P
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364790-27-2P 364790-29-4P 364790-31-8P 364790-33-0P
364790-35-2P 364790-37-4P 364790-39-6P 364790-41-0P
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364790-80-7P 364790-81-8P 364790-82-9P 364790-83-0P
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364790-88-5P 364790-89-6P 364790-90-9P 364790-91-0P
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RL: BSU (Biological study, unclassified); CPN (Combinatorial preparation); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 364792-57-4P 364792-58-5P 364792-59-6P 364792-60-9P
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364793-51-1P
RL: BSU (Biological study, unclassified); CPN (Combinatorial preparation); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 263149-34-4P 263150-20-5P 364787-68-8P **364787-70-2P**
364787-73-5P 364787-77-9P 364787-79-1P
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364788-41-0P 364788-43-2P 364788-45-4P 364788-47-6P
364788-49-8P 364788-51-2P 364788-60-3P 364788-64-7P
364788-66-9P, (2R)-1-[[5-[3-Cyano-4-(2,4-dichloro-5-methoxyanilino)-7-quinolinyl]-2-furyl]methyl]-2-pyrrolidinecarboxamide 364788-68-1P 364788-70-5P
364788-73-8P 364788-79-4P 364788-82-9P 364788-84-1P
364788-86-3P 364788-88-5P 364788-90-9P 364788-94-3P
364788-99-8P 364789-01-5P 364789-03-7P 364789-05-9P

364789-07-1P 364789-09-3P 364789-13-9P 364789-15-1P
364789-17-3P 364789-19-5P 364789-21-9P 364789-23-1P
364789-25-3P 364789-27-5P 364789-29-7P 364789-31-1P
364789-33-3P 364789-34-4P 364789-36-6P 364789-40-2P,
(2R)-1-[4-[3-Cyano-4-(2,4-dichloro-5-methoxyanilino)-7-
quinolinyl]benzyl]-2-pyrrolidinecarboxamide 364789-42-4P
364789-44-6P 364789-46-8P 364789-48-0P 364789-49-1P
364789-51-5P **364789-53-7P** 364789-57-1P 364789-61-7P
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364794-92-3P 364794-93-4P 364794-95-6P 364794-99-0P
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364795-85-7P 364795-86-8P 364795-87-9P 364795-88-0P
364795-89-1P 364795-90-4P 364795-91-5P 364795-92-6P
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364796-05-4P 364796-06-5P 364796-07-6P 364796-08-7P
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364796-25-8P 364796-26-9P 364796-27-0P 364796-28-1P
364796-29-2P 364796-31-6P 364796-32-7P 364796-33-8P
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 364788-97-6P
RL: CPN (Combinatorial preparation); CRT (Combinatorial reactant); PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 364787-81-5P 364788-56-7P 364788-58-9P 364788-62-5P
364788-75-0P 364788-77-2P 364789-11-7P 364789-38-8P
364789-55-9P 364789-59-3P 364794-90-1P 364794-91-2P
364794-94-5P 364794-96-7P 364794-97-8P 364794-98-9P
364795-01-7P 364795-09-5P 364795-11-9P 364795-18-6P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 9026-43-1 79079-06-4, EGFr kinase 80449-02-1 98037-52-6 114051-78-4, Lck kinase 125149-26-0, FGF receptor kinase 137632-06-5, Csk protein kinase 137632-09-8, ErbB-2 kinase 138674-26-7, Syk kinase 139691-76-2, Raf1 kinase 139691-76-2, Raf kinase 140208-17-9, Lyn kinase 141349-89-5, Src kinase 141349-91-9, Yes protein kinase 141436-78-4, Protein kinase C 142008-29-5, Protein kinase A 142243-02-5 142805-58-1, Mek kinase 143597-35-7, UL-97 kinase 144114-16-9, Fak protein **tyrosine kinase** 144697-17-6, c-Src kinase 147014-95-7, ErbB-3 kinase 148047-29-4, Tie-2 kinase 148047-34-1, Zap-70 kinase 148640-14-6, Protein kinase B 149433-92-1, EPH kinase 150027-21-7, PDGF-RA receptor **tyrosine kinase** 150428-23-2 150977-45-0, Gene KDR protein kinase 151769-13-0, Receptor **tyrosine kinase** Tie-1 152743-99-2, Gene erbB-4 protein kinase 161384-16-3, Jak kinase
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(**inhibitors**; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 364793-60-2P 364793-66-8P 364793-67-9P 364794-39-8P 364794-41-2P 364794-45-6P 364794-46-7P 364794-47-8P 364794-48-9P 364794-49-0P 364794-50-3P 364794-51-4P 364794-52-5P
RL: CRT (Combinatorial reactant); RCT (Reactant); SPN (Synthetic preparation); CMBI (Combinatorial study); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 97-60-9P, N-(2-Hydroxy-5-nitrophenyl)acetamide 577-72-0P, 4-Methoxy-3-nitroaniline 623-05-2P, 4-Hydroxybenzyl alcohol 2305-71-7P 5335-29-5P, 3-Chloro-4-phenoxyaniline 14044-59-8P 18994-82-6P 24255-95-6P 27883-60-9P, Methyl 4-hydroxy-5-methoxy-2-nitrobenzoate 31181-90-5P, 5-Bromo-2-pyridinecarbaldehyde 32631-26-8P, 3-Chloro-4-(phenylthio)aniline 33721-54-9P, N-(2-Methoxy-5-nitrophenyl)acetamide 49773-20-8P, 2-(Methylsulfonyl)ethylamine 61032-41-5P 64353-88-4P 67215-15-0P, 2-(Phenylsulfonyl)ethanamine 68893-07-2P 71897-83-1P 100839-46-1P 104458-24-4P 116496-77-6P, N-(2-Ethoxy-5-nitrophenyl)acetamide 132833-51-3P 145218-19-5P 149806-47-3P, 2-[(5-Bromo-2-pyridinyl)(methyl)amino]ethanol 149806-52-0P, 1-(5-Bromo-2-pyridinyl)-4-piperidinol 159324-96-6P 200064-11-5P, 4-(5-Bromo-2-pyridinyl)morpholine 213019-69-3P 214831-64-8P 223556-42-1P 294851-95-9P, 4-[(5-Bromo-2-pyridinyl)methyl]morpholine 342013-81-4P 349616-56-4P 364371-78-8P 364371-79-9P 364371-80-2P 364371-81-3P 364371-82-4P 364793-52-2P 364793-53-3P 364793-54-4P 364793-55-5P 364793-56-6P 364793-57-7P 364793-58-8P 364793-59-9P 364793-61-3P 364793-62-4P 364793-63-5P 364793-64-6P 364793-65-7P 364793-68-0P 364793-69-1P 364793-70-4P 364793-71-5P 364793-72-6P 364793-73-7P 364793-74-8P 364793-75-9P, 4-[[2-(4-Morpholinylmethyl)-3-thienyl]methyl]morpholine 364793-76-0P 364793-77-1P 364793-78-2P 364793-79-3P 364793-80-6P 364793-81-7P 364793-82-8P 364793-83-9P 364793-84-0P 364793-85-1P 364793-86-2P 364793-87-3P, 4-[4-Bromo-2-(4-morpholinylcarbonyl)benzoyl]morpholine 364793-88-4P, 4-[4-Bromo-2-(4-morpholinylmethyl)benzyl]morpholine 364793-89-5P 364793-90-8P 364793-91-9P 364793-92-0P 364793-94-2P

364793-95-3P 364793-96-4P 364793-97-5P 364793-98-6P
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364794-80-9P 364794-81-0P 364794-82-1P 364794-83-2P
364794-84-3P 364794-85-4P 364794-86-5P, 4-[2-(4-Morpholinylmethyl)-4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)benzyl]morpholine 364794-89-8P 364795-25-5P 364795-27-7P
364795-28-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 51-45-6, Histamine, reactions 103-76-4, N-(2-Hydroxyethyl)piperazine 108-00-9, N,N-Dimethylethylenediamine 109-01-3, N-Methylpiperazine 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 123-00-2, N-(3-Aminopropyl)morpholine 141-43-5, Ethanolamine, reactions 3731-53-1, 4-(Aminomethyl)pyridine 4347-33-5 5004-07-9, 4-(1-Pyrrolidinyl)piperidine 5308-25-8, N-Ethylpiperazine 5382-16-1, 4-Hydroxypiperidine 27329-70-0, 2-Formylfuran-5-boronic acid 87199-16-4, 3-Formylphenylboronic acid 87199-17-5, 4-Formylphenylboronic acid 149806-06-4 175592-59-3 364796-34-9
RL: CRT (Combinatorial reactant); RCT (Reactant); CMBI (Combinatorial study); RACT (Reactant or reagent)
(precursor; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 94-05-3, Ethyl (ethoxymethylene)cyanoacetate 98-01-1, 2-Furaldehyde, reactions 99-09-2, 3-Nitroaniline 99-57-0, 2-Amino-4-nitrophenol 99-59-2, 2-Methoxy-5-nitroaniline 100-43-6, 4-Vinylpyridine 100-69-6, 2-Vinylpyridine 107-19-7, Propargyl alcohol 108-95-2, Phenol, reactions 108-98-5, Thiophenol, reactions 109-83-1, 2-(Methylamino)ethanol 109-89-7, Diethylamine, reactions 111-42-2, Bis(2-hydroxyethyl)amine, reactions 119-34-6, 4-Amino-2-nitrophenol 123-08-0, 4-Hydroxybenzaldehyde 139-59-3, 4-Phenoxyaniline 288-32-4, Imidazole, reactions 288-36-8, 1H-1,2,3-Triazole 350-30-1, 3-Chloro-4-fluoronitrobenzene 358-23-6, Trifluoromethanesulfonic anhydride 554-00-7, 2,4-Dichloroaniline 555-16-8, 4-Nitrobenzaldehyde, reactions 591-19-5, 3-Bromoaniline 612-15-7 624-28-2, 2,5-Dibromopyridine 626-01-7, 3-Iodoaniline 661-69-8, Hexamethylditin 696-59-3, 2,5-Dimethoxytetrahydrofuran 768-60-5, 1-Ethynyl-4-methoxybenzene 813-19-4, Bis(tributyltin) 932-41-2, 2,3-Thiophenedicarboxaldehyde 1119-51-3, 5-Bromo-1-pentene 1122-91-4, 4-Bromobenzaldehyde 1124-65-8, 3-(2-Thienyl)acrylic acid 1135-12-2, 4-Aminodiphenylmethane 1461-22-9, Tri-n-butylstannyl chloride 1798-06-7, 4-Iodophenylacetic acid

1899-24-7, 5-Bromo-2-furaldehyde 1945-84-2, 2-Ethynylpyridine 2274-42-2 2695-47-8, 6-Bromo-1-hexene 2706-56-1, 2-(2-Aminoethyl)pyridine 2812-47-7, Prolinamide 2971-79-1, Methyl isonipecotate 3132-99-8, 3-Bromobenzaldehyde 3319-99-1 3430-13-5, 5-Bromo-2-methylpyridine 3647-69-6, 4-(2-Chloroethyl)morpholine hydrochloride 4637-24-5, Dimethylformamide dimethyl acetal 4653-11-6; 4-(2-Thienyl)butyric acid 4701-17-1, 5-Bromo-2-thiophenecarboxaldehyde 5568-33-2, 2-Chloro-4-nitrobenzaldehyde 5720-07-0, 4-Methoxyphenylboronic acid 5794-88-7, 5-Bromoanthranilic acid 6968-28-1, 4-Bromophthalic acid 7223-38-3, 1-Dimethylamino-2-propyne 7311-64-0, 3-Bromo-2-thiophenecarboxylic acid 7531-52-4, L-Prolineamide 7605-28-9 13331-27-6, 3-Nitrophenylboronic acid 13750-81-7 13922-41-3, 1-Naphthylboronic acid 14047-29-1, 4-Carboxyphenylboronic acid 14267-92-6, 5-Chloro-1-pentyne 18791-75-8, 4-Bromo-2-thiophenecarboxaldehyde 18791-78-1 18791-79-2 20826-04-4, 5-Bromonicotinic acid 22037-28-1, 3-Bromofuran 26189-59-3, 1-Chloro-N,N,2-trimethyl propenylamine 30483-75-1, 4-(4-Bromophenyl)morpholine 32316-92-0, 2-Naphthylboronic acid 40138-16-7, 2-Formylphenylboronic acid 50907-23-8, 5-(4-Bromophenyl)-1H-tetrazole 53939-30-3, 5-Bromo-2-chloropyridine 56441-97-5 57946-56-2, 4-Chloro-2-fluoroaniline 58267-85-9 58268-08-9 78887-39-5, 3-Acetamidophenylboronic acid 98404-04-7, 2-Chloro-4-fluoro-5-methoxyaniline 98437-23-1 98437-24-2 98446-49-2, 2,4-Dichloro-5-methoxyaniline 101990-45-8, 2-Bromo-5-(bromomethyl)pyridine 106984-95-6 118505-28-5 133088-44-5, 2-Chloro-4-methyl-5-methoxyaniline 133303-88-5 139696-74-5 194851-19-9 195457-54-6 214209-93-5 214484-11-4 214485-60-6 364793-93-1 364794-21-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursor; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

L138 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2001:730706 Document No. 135:288703 3-Cyanoquinolines, 3-cyano-1,6-naphthyridines, and 3-cyano-1,7-naphthyridines as protein kinase **inhibitors**. Boschelli, Diane Harris; Wang, Yanong; Boschelli, Frank Charles; Berger, Dan Maarten; Zhang, Nan; Powell, Dennis William; Ye, Fei; Yamashita, Ayako; Demorin, Frenel Fils; Wu, Biqi; Tsou, Hwei-ru; Overbeek-klumpers, Elsebe Geraldine; Wissner, Allan (American Home Products Corporation, USA). PCT Int. Appl. WO 2001072711 A1 20011004, 448 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US9966 20010328. PRIORITY: US 2000-535843 20000328.
GI

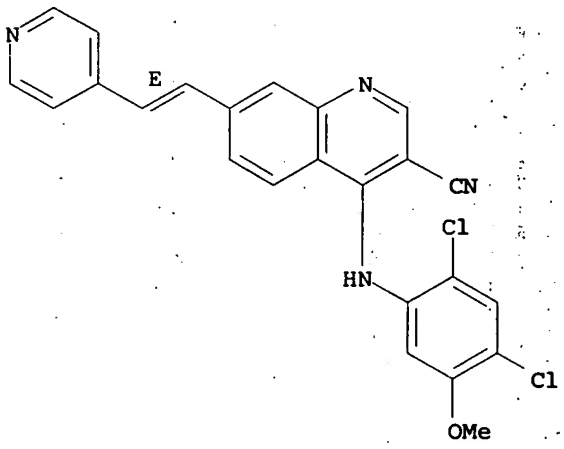
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [X = N(H) or substituted derivs., O, SO0-2; n = 0-1; A = divalent (un)substituted alkyl, C(O), C(O)-alkyl, alkyl-C(O), cycloalkyl, or **absent**; T, Z = C, N provided that both T and Z are not N; R1 = cycloalkyl, 5-6 atom (hetero)aryl ring containing 0-4 heteroatoms, 8-20 atom bicyclic heteroaryl ring containing 1-4 heteroatoms, etc.; R2a-c = H, aryl, CH2-aryl, O-aryl, SO0-2-aryl, NO2, SH, etc.; R3 = alkenyl, alkynyl, (hetero)aryl; R4 = (un)substituted alkyl, alkenyl, alkynyl, (hetero)aryl] were prepared Over 500 synthetic examples were disclosed, including some combinatorial prepns., and addnl. reference examples. E.g., 4-[(4-bromo-2-thienyl)methyl]morpholine reacted with bis(pinacolato)diboron [DMSO, PdCl2(dppf), KOAc] to give dioxaborolane II. II was coupled to 7-bromo-4-[3-chloro-4-[(1-methyl-1H-imidazol-2-yl)sulfanyl]anilino]-3-quinolinecarbonitrile [preparation given; diglyme, Pd(PPh3)4, NaHCO3] to yield invention compound III as a yellow solid after purification III had IC50 = 6.0 nM for Raf1 kinase and **inhibited** the human adenocarcinoma CaCo-2 cell line with IC50 = 1.9, 0.78 (2 trials). I are useful as antineoplastic agents, and in the treatment of osteoporosis and polycystic kidney disease.

IT **364787-70-2P 364787-73-5P 364787-77-9P 364789-53-7P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

RN 364787-70-2 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(2,4-dichloro-5-methoxyphenyl)amino]-7-[(1E)-2-(4-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



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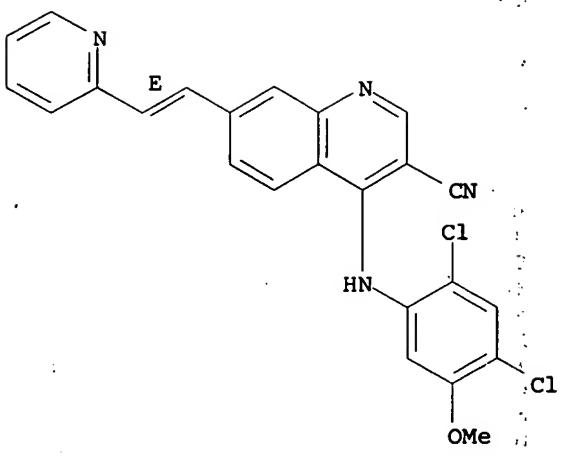
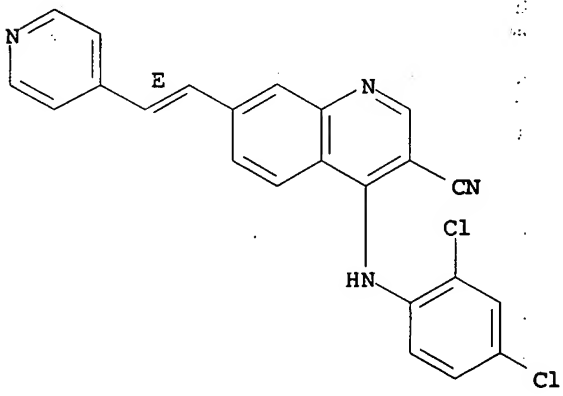
CN 3-Quinolinecarbonitrile, 4-[(2,4-dichloro-5-methoxyphenyl)amino]-7-[(1E)-2-(2-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

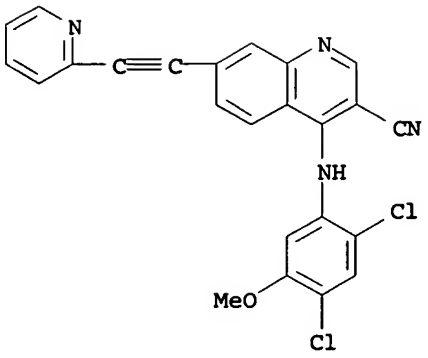


RN 364787-77-9 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(2,4-dichlorophenyl)amino]-7-[(1E)-2-(4-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 364789-53-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(2,4-dichloro-5-methoxyphenyl)amino]-7-(2-pyridinylethynyl)- (9CI) (CA INDEX NAME)



IC ICM C07D215-54
ICS C07D409-04; C07D401-04; C07D401-06; C07D405-04; C07D405-14; C07D409-14; C07D401-12; C07D401-10; C07D401-14; C07D405-12; C07D471-04; A61K031-4706; A61K031-4709; A61P035-00; C07D471-04; C07D221-00; C07D221-00

CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 7, 28

ST cyanoquinoline cyanonaphthyridine prepn protein kinase **inhibitor**; quinolinecarbonitrile prepn antineoplastic antiproliferative treatment osteoporosis polycystic kidney disease; combinatorial library cyanoquinoline protein kinase **inhibitor**

IT Intestine, neoplasm
(colon, polyp, treatment; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT Vascular endothelial growth factor receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(gene flt 1, **inhibitors**; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT Kidney, disease
(polycystic, treatment; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT Antiarthritics
Antitumor agents
Antiviral agents
Cytotoxic agents
Immunosuppressants
(preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT Proliferation **inhibition**
(proliferation **inhibitors**; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT Artery, disease
(restenosis, treatment; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT Osteoporosis
(therapeutic agents; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT Autoimmune disease
Rheumatoid arthritis
Sepsis
Transplant rejection
(treatment; preparation of cyanoquinolines and cyanonaphthyridines

as protein kinase **inhibitors**)
IT 364794-19-4P 364794-87-6P
RL: BYP (Byproduct); PREP (Preparation)
(byproduct; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT 364794-11-6P 364794-14-9P 364794-16-1P
RL: BYP (Byproduct); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(byproduct; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
IT 364787-81-5P 364788-56-7P 364788-58-9P 364788-62-5P
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

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364795-55-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 364795-56-2P 364795-57-3P 364795-58-4P 364795-59-5P
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364796-29-2P 364796-31-6P 364796-32-7P 364796-33-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 9026-43-1 79079-06-4, EGFr kinase 80449-02-1 98037-52-6
114051-78-4, Lck kinase 125149-26-0, FGF receptor kinase
137632-06-5, Csk protein kinase 137632-09-8, erbB-2 kinase
138674-26-7, Syk kinase 139691-76-2, Raf kinase 139691-76-2,
Raf1 kinase 140208-17-9, Lyn kinase 141349-89-5, Src kinase

141349-91-9, Yes protein kinase 141436-78-4, Protein kinase C 142008-29-5, Protein kinase A 142243-02-5 142805-58-1, Mek kinase 143597-35-7, UL-97 kinase 144114-16-9, Fak protein **tyrosine kinase** 144697-17-6, c-Src kinase 147014-95-7, erbB-3 kinase 148047-29-4, tie-2 kinase 148047-34-1, Zap-70 kinase 148640-14-6, Protein kinase B 149433-92-1, EPH kinase 150027-21-7, PDGF-RA receptor **tyrosine kinase** 150428-23-2 150977-45-0, Gene KDR protein kinase 151769-13-0, Receptor **tyrosine kinase** Tie-1 152743-99-2, Gene erbB-4 protein kinase 161384-16-3, Jak kinase
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(**inhibitors**; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 97-60-9P, N-(2-Hydroxy-5-nitrophenyl)acetamide 577-72-0P, 4-Methoxy-3-nitroaniline 623-05-2P, 4-Hydroxybenzyl alcohol 2305-71-7P 5335-29-5P, 3-Chloro-4-phenoxyaniline 14044-59-8P 18994-82-6P 24255-95-6P 27883-60-9P, Methyl 4-hydroxy-5-methoxy-2-nitrobenzoate 31181-90-5P, 5-Bromo-2-pyridinecarbaldehyde 32631-26-8P, 3-Chloro-4-(phenylthio)aniline 33721-54-9P, N-(2-Methoxy-5-nitrophenyl)acetamide 49773-20-8P, 2-(Methylsulfonyl)ethylamine 61032-41-5P 64353-88-4P 67215-15-0P, 2-(Phenylsulfonyl)ethanamine 68893-07-2P 71897-83-1P 100839-46-1P 104458-24-4P 116496-77-6P, N-(2-Ethoxy-5-nitrophenyl)acetamide 132833-51-3P 145218-19-5P 149806-47-3P, 2-[(5-Bromo-2-pyridinyl)(methyl)amino]ethanol 149806-52-0P, 1-(5-Bromo-2-pyridinyl)-4-piperidinol 159324-96-6P 200064-11-5P, 4-(5-Bromo-2-pyridinyl)morpholine 213019-69-3P 214831-64-8P 223556-42-1P 294851-95-9P, 4-[(5-Bromo-2-pyridinyl)methyl]morpholine 342013-81-4P 349616-56-4P 364371-78-8P 364371-79-9P 364371-80-2P 364371-81-3P 364371-82-4P 364793-52-2P 364793-53-3P 364793-54-4P 364793-55-5P 364793-56-6P 364793-57-7P 364793-58-8P 364793-59-9P 364793-60-2P 364793-61-3P 364793-62-4P 364793-63-5P 364793-64-6P 364793-65-7P 364793-66-8P 364793-67-9P 364793-68-0P 364793-69-1P 364793-70-4P 364793-71-5P 364793-72-6P 364793-73-7P 364793-74-8P 364793-75-9P, 4-[[2-(4-Morpholinylmethyl)-3-thienyl]methyl]morpholine 364793-76-0P 364793-77-1P 364793-78-2P 364793-79-3P 364793-80-6P 364793-81-7P 364793-82-8P 364793-83-9P 364793-84-0P 364793-85-1P 364793-86-2P 364793-87-3P, 4-[4-Bromo-2-(4-morpholinylcarbonyl)benzoyl]morpholine 364793-88-4P, 4-[4-Bromo-2-(4-morpholinylmethyl)benzyl]morpholine 364793-89-5P 364793-90-8P 364793-91-9P 364793-92-0P 364793-94-2P 364793-95-3P 364793-96-4P 364793-97-5P 364793-98-6P 364793-99-7P 364794-00-3P 364794-01-4P 364794-02-5P 364794-03-6P 364794-04-7P 364794-05-8P 364794-06-9P 364794-07-0P 364794-08-1P 364794-09-2P 364794-10-5P 364794-13-8P 364794-15-0P 364794-17-2P 364794-18-3P 364794-20-7P 364794-22-9P 364794-23-0P 364794-24-1P 364794-25-2P 364794-26-3P 364794-27-4P 364794-28-5P 364794-29-6P 364794-30-9P 364794-31-0P 364794-32-1P 364794-33-2P 364794-34-3P 364794-35-4P 364794-36-5P 364794-37-6P 364794-38-7P 364794-39-8P 364794-40-1P 364794-41-2P 364794-42-3P 364794-43-4P 364794-44-5P 364794-45-6P 364794-46-7P 364794-47-8P 364794-48-9P 364794-49-0P 364794-50-3P 364794-51-4P 364794-52-5P 364794-53-6P 364794-54-7P 364794-55-8P 364794-56-9P

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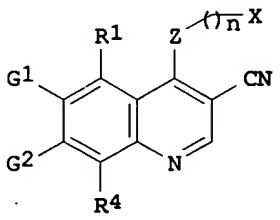
364794-86-5P, 4-[2-(4-Morpholinylmethyl)-4-(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)benzyl]morpholine 364794-89-8P
364795-25-5P 364795-27-7P 364795-28-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

IT 51-45-6, Histamine, reactions 94-05-3, Ethyl (ethoxymethylene)cyanoacetate 98-01-1, 2-Furaldehyde, reactions 99-09-2, 3-Nitroaniline 99-57-0, 2-Amino-4-nitrophenol 99-59-2, 2-Methoxy-5-nitroaniline 100-43-6, 4-Vinylpyridine 100-69-6, 2-Vinylpyridine 103-76-4, N-(2-Hydroxyethyl)piperazine 107-19-7, Propargyl alcohol 108-00-9, N,N-Dimethylethylenediamine 108-95-2, Phenol, reactions 108-98-5, Thiophenol, reactions 109-01-3, N-Methylpiperazine 109-83-1, 2-(Methylamino)ethanol 109-89-7, Diethylamine, reactions 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions 111-42-2, Bis(2-hydroxyethyl)amine, reactions 119-34-6, 4-Amino-2-nitrophenol 123-00-2, N-(3-Aminopropyl)morpholine 123-08-0, 4-Hydroxybenzaldehyde 139-59-3, 4-Phenoxyaniline 141-43-5, Ethanolamine, reactions 288-32-4, Imidazole, reactions 288-36-8, 1H-1,2,3-Triazole 350-30-1, 3-Chloro-4-fluoronitrobenzene 358-23-6, Trifluoromethanesulfonic anhydride 554-00-7, 2,4-Dichloroaniline 555-16-8, 4-Nitrobenzaldehyde, reactions 591-19-5, 3-Bromoaniline 612-15-7 624-28-2, 2,5-Dibromopyridine 626-01-7, 3-Iodoaniline 661-69-8, Hexamethylditin 696-59-3, 2,5-Dimethoxytetrahydrofuran 768-60-5, 1-Ethynyl-4-methoxybenzene 813-19-4, Bis(tributyltin) 932-41-2, 2,3-Thiophenedicarboxaldehyde 1119-51-3, 5-Bromo-1-pentene 1122-91-4, 4-Bromobenzaldehyde 1124-65-8, 3-(2-Thienyl)acrylic acid 1135-12-2, 4-Aminodiphenylmethane 1461-22-9, Tri-n-butylstannyl chloride 1798-06-7, 4-Iodophenylacetic acid 1899-24-7, 5-Bromo-2-furaldehyde 1945-84-2, 2-Ethynylpyridine 2274-42-2 2695-47-8, 6-Bromo-1-hexene 2706-56-1, 2-(2-Aminoethyl)pyridine 2812-47-7, Prolinamide 2971-79-1, Methyl isonipecotate 3132-99-8, 3-Bromobenzaldehyde 3319-99-1 3430-13-5, 5-Bromo-2-methylpyridine 3647-69-6, 4-(2-Chloroethyl)morpholine hydrochloride 3731-53-1, 4-(Aminomethyl)pyridine 4347-33-5 4637-24-5, Dimethylformamide dimethyl acetal 4653-11-6, 4-(2-Thienyl)butyric acid 4701-17-1, 5-Bromo-2-thiophenecarboxaldehyde 5004-07-9, 4-(1-Pyrrolidinyl)piperidine 5308-25-8, N-Ethylpiperazine 5382-16-1, 4-Hydroxypiperidine 5568-33-2, 2-Chloro-4-nitrobenzaldehyde 5720-07-0, 4-Methoxyphenylboronic acid 5794-88-7, 5-Bromoanthranilic acid 6968-28-1, 4-Bromophthalic acid 7223-38-3, 1-Dimethylamino-2-propyne 7311-64-0, 3-Bromo-2-thiophenecarboxylic acid 7531-52-4, L-Prolineamide 7605-28-9 13331-27-6, 3-Nitrophenylboronic acid 13750-81-7 13922-41-3, 1-Naphthylboronic acid 14047-29-1, 4-Carboxyphenylboronic acid 14267-92-6, 5-Chloro-1-pentyne 18791-75-8, 4-Bromo-2-thiophenecarboxaldehyde 18791-78-1 18791-79-2 20826-04-4, 5-Bromonicotinic acid 22037-28-1, 3-Bromofuran 26189-59-3, 1-Chloro-N,N,2-trimethyl propenylamine 27329-70-0, 2-Formylfuran-5-boronic acid 30483-75-1, 4-(4-

Bromophenyl)morpholine 32316-92-0, 2-Naphthylboronic acid 40138-16-7, 2-Formylphenylboronic acid 50907-23-8, 5-(4-Bromophenyl)-1H-tetrazole 53939-30-3, 5-Bromo-2-chloropyridine 56441-97-5 57946-56-2, 4-Chloro-2-fluoroaniline 58267-85-9 58268-08-9 78887-39-5, 3-Acetamidophenylboronic acid 87199-16-4, 3-Formylphenylboronic acid 87199-17-5, 4-Formylphenylboronic acid 98404-04-7, 2-Chloro-4-fluoro-5-methoxyaniline 98437-23-1 98437-24-2 98446-49-2, 2,4-Dichloro-5-methoxyaniline 101990-45-8, 2-Bromo-5-(bromomethyl)pyridine 106984-95-6 118505-28-5 133088-44-5, 2-Chloro-4-methyl-5-methoxyaniline 133303-88-5 139696-74-5 149806-06-4 175592-59-3 194851-19-9 195457-54-6 214209-93-5 214484-11-4 214485-60-6 364793-93-1 364794-21-8 364796-34-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(precursor; preparation of cyanoquinolines and cyanonaphthyridines as protein kinase **inhibitors**)

L138 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2001:721437 Document No. 135:272896 Preparation of substituted 3-cyanoquinolines as protein **tyrosine kinases inhibitors**. Wissner, Allan; Tsou, Hwei-ru; Berger, Dan M.; Floyd, Middleton B., Jr.; Hamann, Philip R.; Zhang, Nan; Frost, Philip (American Cyanamid Company, USA). U.S. US 6297258 B1 20011002, 57 pp., Cont. of U.S. Ser. No. 405,868, abandoned. (English). CODEN: USXXAM. APPLICATION: US 2000-630270 20000801. PRIORITY: US 1998-PV150699 19980929; US 1999-405868 19990924.

GI



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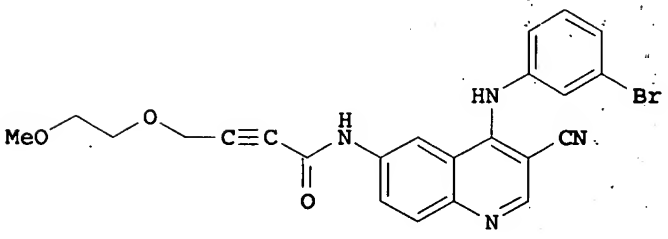


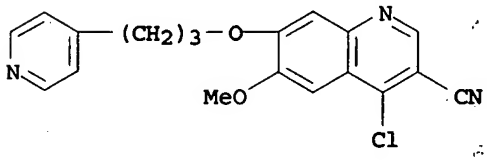
II

AB Title compds. I [X = cycloalkyl, pyridinyl, pyrimidinyl, etc.; Z = NH, O, S, NR; R = alkyl; G1, G2, R1, R4 = H, halo, alkyl, alkynyl, etc.; n = 0, 1], protein **tyrosine kinase inhibitors**, were prepared Examples included 189 compds. and 6 bioassays. E.g., II was prepared by coupling the 4-(2-methoxyethoxy)but-2-ynoic acid with 6-amino-3-cyano-4-[(3-bromophenyl)amino]quinoline (i-BuOCOCl, N-methylmorpholine, THF,

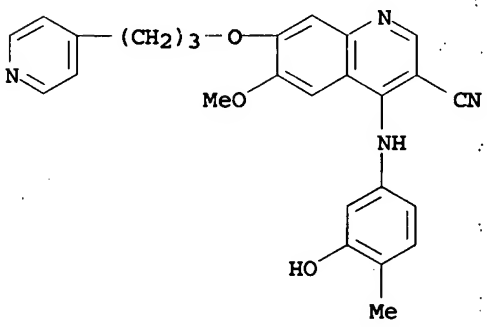
0°C, 3 h) in 32% yield after purification II had IC50 = 0.006 μM for EGFR kinase. I are useful as antineoplastic agents.

IT **263149-11-7P 263149-12-8P 263150-34-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

RN 263149-11-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-chloro-6-methoxy-7-[3-(4-pyridinyl)propoxy]- (9CI) (CA INDEX NAME)

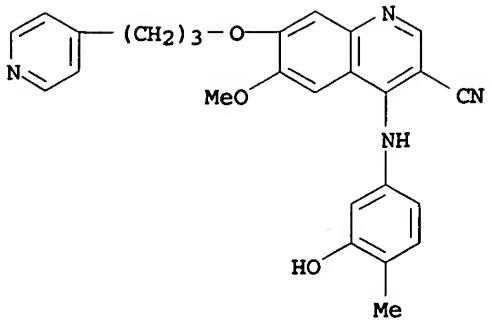


RN 263149-12-8 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-hydroxy-4-methylphenyl)amino]-6-methoxy-7-[3-(4-pyridinyl)propoxy]-, hydrochloride (9CI) (CA INDEX NAME)

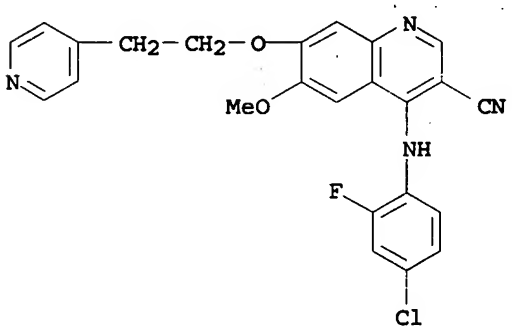


●x HCl

RN 263150-34-1 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-hydroxy-4-methylphenyl)amino]-6-methoxy-7-[3-(4-pyridinyl)propoxy]- (9CI) (CA INDEX NAME)



IT **263148-99-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)
RN 263148-99-8 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(4-chloro-2-fluorophenyl)amino]-6-methoxy-7-[2-(4-pyridinyl)ethoxy]- (9CI) (CA INDEX NAME)



IC ICM A61K031-47
ICS C07D215-44
INCL 514313000
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 63
ST cyanoquinoline prepn protein **tyrosine kinase inhibitor**; quinoline cyano prepn protein **tyrosine kinase inhibitor**; antineoplastic agent cyanoquinoline prepn
IT 79079-06-4, Epidermal growth factor receptor kinase 137632-08-7, ERK 2 kinase 142805-58-1, MAPKK 149433-91-0, Eck kinase 150977-45-0, KDR receptor **tyrosine kinase**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(preparation of cyanoquinolines as antineoplastic agents)
IT 198149-15-4P 263148-94-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 2103-50-6P 214476-89-8P 214476-99-0P 263148-87-4P
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263149-04-8P 263149-06-0P 263149-07-1P 263149-08-2P
263149-09-3P 263149-10-6P **263149-11-7P**
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263150-24-9P 263150-26-1P 263150-28-3P 263150-30-7P
263150-31-8P 263150-32-9P **263150-34-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 94-05-3 97-52-9, 2-Methoxy-4-nitroaniline 98-16-8, 3-Trifluoromethylaniline 99-52-5 100-01-6, 4-Nitroaniline, reactions 103-76-4, 4-(2-Hydroxyethyl)piperazine 106-40-1, 4-Bromoaniline 106-96-7, Propargyl bromide 107-19-7, Propargyl alcohol 107-30-2, Chloromethyl methyl ether 107-94-8, 3-Chloropropionic acid 108-42-9, 3-Chloroaniline 108-44-1, 3-Toluidine, reactions 109-01-3, 1-Methylpiperazine 109-83-1, 2-(Methylamino)ethanol 109-86-4, 2-Methoxyethanol 110-97-4, 1,1'-Iminodi-2-propanol 111-42-2, Bis(2-hydroxyethyl)amine, reactions 111-95-5 123-90-0, Thiomorpholine 124-02-7, Diallylamine 177-11-7, 1,4-Dioxa-8-azaspiro[4.5]decane 367-21-5, 3-Chloro-4-fluoroaniline 504-78-9, Thiazolidine 536-90-3, 3-Methoxyaniline 590-93-2, 2-Butynoic acid 591-19-5, 3-Bromoaniline 615-55-4, 3,4-Dibromoaniline 621-33-0, 3-Ethoxyaniline 624-65-7, Propargyl chloride 626-01-7, 3-Iodoaniline 656-64-4, 3-Bromo-4-fluoroaniline 693-95-8, 4-Methylthiazole 766-17-6, cis-2,6-Dimethylpiperidine 1117-71-1, Methyl 4-bromocrotonate 2237-30-1, 3-Aminobenzonitrile 2629-72-3, 3-(4-Pyridyl)-1-propanol 2799-21-5, (R)-3-Pyrrolidinol 2835-95-2, 3-Hydroxy-4-methylaniline 3378-71-0, 2,5-Dimethylpyrrolidine 3433-37-2, 2-Hydroxymethylpiperidine 3581-89-3, 5-Methylthiazole 3863-11-4, 3,4-Difluoroaniline 4606-65-9, 3-Hydroxymethylpiperidine 4747-21-1, Isopropylmethylamine 5231-87-8 5344-27-4, 2-(4-Pyridyl)ethanol 5382-16-1, 4-Hydroxypiperidine 6139-84-0, 4-Chlorobutanal 7223-38-3, 1-Dimethylamino-2-propyne 32631-26-8 38256-93-8 41775-76-2, 1,4,7-Trioxa-10-azacyclododecane 41979-39-9, 4-Piperidone hydrochloride 51544-74-2, 4-Bromocrotonyl chloride 54060-30-9, 3-Ethynylaniline 57366-77-5 57946-56-2,

4-Chloro-2-fluoroaniline 61032-42-6 63126-47-6 74024-49-0
214470-55-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 2458-24-4P 13280-03-0P 20629-35-0P 27333-44-4P 45813-02-3P
71083-64-2P 118764-05-9P 214470-27-6P 214470-33-4P
214470-35-6P 214470-37-8P 214471-15-5P 214471-46-2P
214476-07-0P 214476-08-1P 214476-09-2P 214476-14-9P
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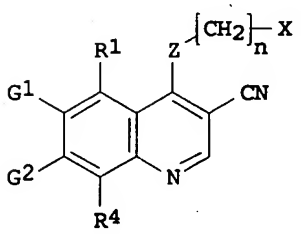
263149-28-6P 263149-29-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 214485-81-1P 214487-06-6P 263148-96-5P 263148-97-6P
263148-99-8P 263150-36-3P 263150-38-5P 263150-40-9P
263150-42-1P 263150-44-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

L138 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2001:672213 Document No. 135:226901 Preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**. Wissner, Allan; Tsou, Hwei-ru; Berger, Dan M.; Floyd, Middleton B., Jr.; Hamann, Philip R.; Zhang, Nan; Salvati, Mark E.; Frost, Philip (American Cyanamid Company, USA). U.S. US 6288082 B1 20010911, 68 pp. (English). CODEN: USXXAM. APPLICATION: US 1999-406573 19990924. PRIORITY: US 1998-PV150693 19980929.

GI



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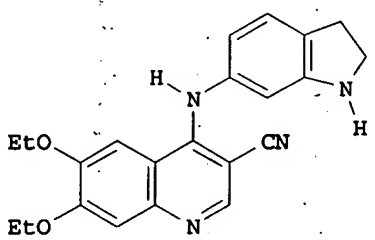


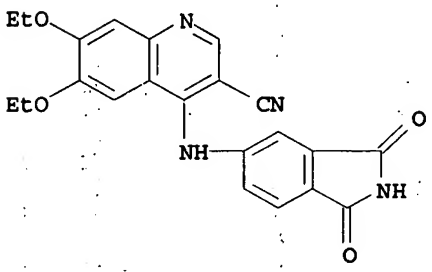
II

AB The title compds. [I; X = (un)substituted bicyclic aryl or bicyclic heteroaryl ring system of 8-12 atoms where the bicyclic heteroaryl ring contains 1-4 heteroatoms selected from N, O and S;

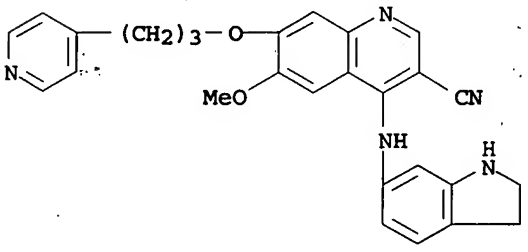
Z = (un)substituted NH, O, S; G1, G2, R1, R4 = H, halo, alkyl, etc.; n = 0-1], useful as antineoplastic agents and in the treatment of polycystic kidney disease, were prepared Thus, Me 2-amino-4,5-diethoxybenzoate was N-condensed with HCNMe2/POCl3 and the product cyclocondensed with MeCN to give, after POCl3 treatment, 4-chloro-6,7-diethoxyquinoline-3-carbonitrile which was aminated by 6-aminoindoline to give title compd II. Data for biol. activity (**inhibition** of EGFR kinase, KDR, Eck, Mek-Erk) of I were given.

IT **263169-93-3P 263170-11-2P 263170-16-7P**
263170-19-0P 263170-20-3P 263170-21-4P
263170-22-5P 263170-40-7P 263171-52-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

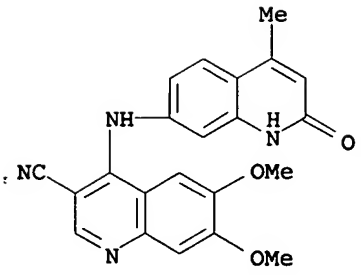
RN 263169-93-3 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(2,3-dihydro-1,3-dioxo-1H-isoindol-5-yl)amino]-6,7-diethoxy- (9CI) (CA INDEX NAME)



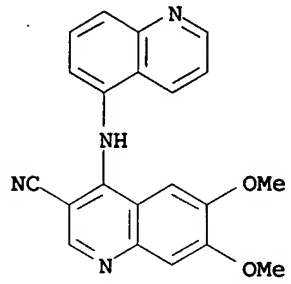
RN 263170-11-2 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(2,3-dihydro-1H-indol-6-yl)amino]-6-methoxy-7-[3-(4-pyridinyl)propoxy]- (9CI) (CA INDEX NAME)



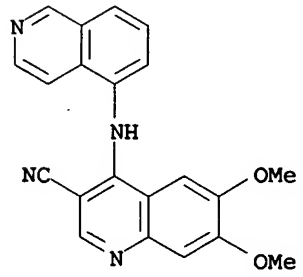
RN 263170-16-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(1,2-dihydro-4-methyl-2-oxo-7-quinolinyl)amino]-6,7-dimethoxy- (9CI) (CA INDEX NAME)



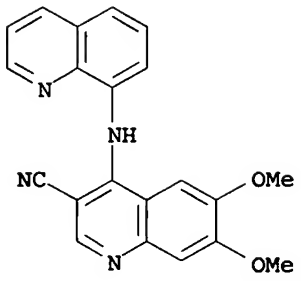
RN 263170-19-0 HCAPLUS
CN 3-Quinolinecarbonitrile, 6,7-dimethoxy-4-(5-quinolinylamino)-
(9CI) (CA INDEX NAME)



RN 263170-20-3 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-(5-isoquinolinylamino)-6,7-dimethoxy-
(9CI) (CA INDEX NAME)



RN 263170-21-4 HCAPLUS
CN 3-Quinolinecarbonitrile, 6,7-dimethoxy-4-(8-quinolinylamino)-
(9CI) (CA INDEX NAME)



RN 263170-22-5 HCAPLUS
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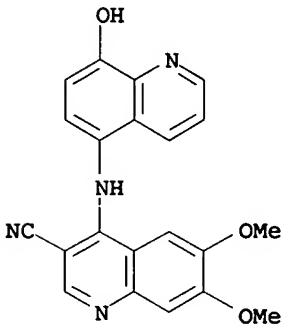

RN 263170-40-7 HCAPLUS
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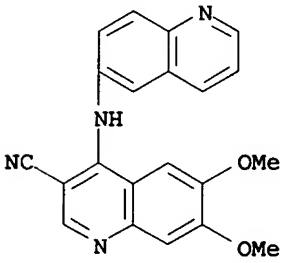
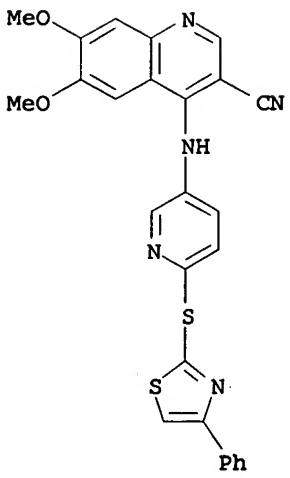
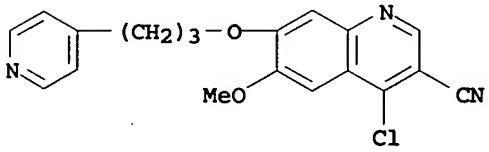


RN 263171-52-4 HCAPLUS
CN 3-Quinolinecarbonitrile, 6,7-dimethoxy-4-[[6-[(4-phenyl-2-thiazolyl)thio]-3-pyridinyl]amino]- (9CI) (CA INDEX NAME)



IT **263149-11-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)
RN 263149-11-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-chloro-6-methoxy-7-[3-(4-pyridinyl)propoxy]- (9CI) (CA INDEX NAME)



IC ICM A61K031-47
ICS C07D213-68; C07D213-74
INCL 514313000
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1
ST cyanoquinoline prepn protein **tyrosine kinase inhibitor** antitumor; polycystic kidney disease
cyanoquinoline prepn; mitogen activated protein kinase ERK **inhibitor** cyanoquinoline prepn; EGFR kinase **inhibitor** cyanoquinoline prepn; KDR protein kinase **inhibitor** cyanoquinoline prepn; epithelial cell kinase eck **inhibitor** cyanoquinoline prepn
IT Kidney, disease
(polycystic, treatment of polycystic kidney disease; preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)
IT Antitumor agents
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)
IT 288-32-4, Imidazole, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(Growth factor receptors preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 79079-06-4, EGFR kinase
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(mediated disorders; treatment; preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 137632-08-7
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(mitogen-activated protein kinase (Mek-Erk); preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT **263169-93-3P** **263170-11-2P** **263170-16-7P** **263170-19-0P** **263170-20-3P** **263170-21-4P** **263170-22-5P** **263170-40-7P** **263171-52-4P**
263169-81-9P 263169-82-0P 263169-83-1P 263169-84-2P
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 142243-02-5 149433-91-0 150977-45-0
RL: BSU (Biological study, unclassified); MSC (Miscellaneous);

BIOL (Biological study)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 59-31-4, Carbostyril 87-13-8, Diethyl ethoxymethylenemalonate 91-21-4, 1,2,3,4-Tetrahydroisoquinoline 94-05-3, Ethyl ethoxymethylenecyanoacetate 97-52-9, 2-Methoxy-4-nitroaniline 99-52-5 100-01-6, 4-Nitroaniline, reactions 103-76-4, 1-(2-Hydroxyethyl)piperazine 106-96-7, Propargyl bromide 107-19-7, Propargyl alcohol 109-01-3, 1-Methylpiperazine 109-86-4, 2-Methoxyethanol 110-91-8, Morpholine, reactions 111-42-2, Diethanolamine, reactions 111-95-5 123-90-0, Thiomorpholine 134-20-3, Methyl anthranilate 177-11-7, 1,4-Dioxa-8-azaspiro[4,5]decane 350-30-1, 3-Chloro-4-fluoronitrobenzene 533-30-2, 6-Aminobenzothiazole 536-90-3, 3-Methoxyaniline 578-66-5, 8-Aminoquinoline 580-15-4, 6-Aminoquinoline 611-34-7, 5-Aminoquinoline 621-33-0, 3-Ethoxyaniline 624-65-7, Propargyl chloride 632-02-0, 3-Chloropropyl p-toluenesulfonate 645-08-9, 3-Hydroxy-4-methoxybenzoic acid 934-22-5, 5-Aminobenzimidazole 1117-71-1, Methyl 4-bromocrotonate 1125-60-6, 5-Aminoisoquinoline 2217-41-6, 1-Amino-5,6,7,8-tetrahydronaphthalene 2629-72-3, 4-(3-Hydroxypropyl)pyridine 3177-80-8, 2-Amino-3-methoxybenzoic acid 3325-11-9, 5-Aminobenzotriazole 3943-74-6, Methyl 4-hydroxy-3-methoxybenzoate 4442-54-0 4684-12-2, 1-Amino-4-chloronaphthalene 4747-21-1, Isopropylmethylamine 5035-82-5, Methyl 2-amino-3,4,5-trimethoxybenzoate 5192-03-0, 5-Aminoindole 5192-23-4, 4-Aminoindole 5318-27-4, 6-Aminoindole 5382-16-1, 4-Hydroxypiperidine 5685-05-2, 2-Mercaptothiazole 6315-89-5, 4-Aminoveratrole 6967-12-0, 6-Aminoindazole 7223-38-3, N,N-Dimethyl-2-propynylamine 7357-67-7, 4-(3-Chloropropyl)morpholine 13669-62-0, 4-Chloro-6-methoxyquinoline-3-carbonitrile 14268-66-7, 3,4-Methylenedioxyaniline 19335-11-6, 5-Aminoindazole 20197-71-1, Methyl 2-amino-4,5-diethoxybenzoate 20503-40-6, 6-Amino-1,1-dioxobenzo[b]thiophene 21302-43-2, 5-Amino-8-hydroxyquinoline dihydrochloride 22013-33-8, 6-Amino-1,4-benzodioxane 24425-40-9 26093-31-2, 7-Amino-4-methylcoumarin 28228-73-1, 6-Aminoindoline dihydrochloride 28782-50-5, 4-Aminophthalhydrazide 29043-48-9, 5-Amino-2-methyl-1H-benzimidazole 32770-99-3, 5-Amino-2-methylbenzothiazole dihydrochloride 38256-93-8, N-Methyl-2-methoxyethylamine 42533-63-1, 4-Bromomethyl-3-chloro-1-nitrobenzene 50472-10-1, 2-Amino-3,6-dimethoxybenzoic acid 56354-98-4, 6-Amino-2-benzothiazolinone 57319-65-0, 6-Aminophthalide 57366-77-5 61032-42-6, Methyl 2-amino-4-benzyloxy-5-methoxybenzoate 63126-47-6, (S)-2-Methoxymethylpyrrolidine 69975-65-1, 6-Amino-1-indanone 133303-88-5 169037-24-5 179688-27-8, Ethyl 2-amino-4,5-bis(2-methoxyethoxy)benzoate 263171-68-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 2286-55-7P 2458-24-4P 3535-24-8P 6702-50-7P, Methyl isovanillate 13280-03-0P 13436-14-1P 20197-75-5P 20197-76-6P 20629-35-0P 26893-14-1P 27333-44-4P 45813-02-3P 50413-49-5P 52791-03-4P 61338-35-0P 71083-59-5P 71083-64-2P 71083-71-1P 73387-74-3P 97966-31-9P 111627-40-8P 113290-32-7P 118764-05-9P 198149-15-4P 214470-27-6P 214470-33-4P 214470-35-6P 214470-37-8P 214470-52-7P 214470-55-0P 214470-56-1P 214470-57-2P 214470-58-3P 214470-59-4P 214470-60-7P 214470-61-8P 214470-66-3P 214470-68-5P 214470-72-1P

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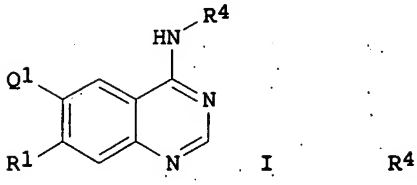
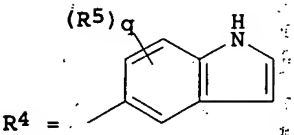
214475-85-1P 214475-98-6P 214475-99-7P 214476-00-3P
214476-04-7P 214476-07-0P 214476-08-1P 214476-09-2P
214476-14-9P 214476-23-0P 214476-46-7P 214476-63-8P
214476-65-0P 214476-68-3P 214476-69-4P 214476-70-7P
214476-71-8P 214476-77-4P 214476-78-5P 214476-89-8P
214476-99-0P 214487-27-1P 220699-97-8P 220699-98-9P
220699-99-0P 220700-00-5P 220700-02-7P 220700-03-8P
220700-04-9P 220700-05-0P 263148-94-3P 263148-96-5P
263148-97-6P 263149-09-3P 263149-10-6P **263149-11-7P**
263171-58-0P 263171-59-1P 263171-60-4P 263171-61-5P
263171-62-6P 263171-63-7P 263171-64-8P 263171-65-9P
263171-66-0P 263171-67-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

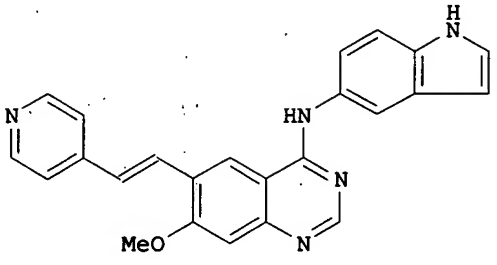
L138 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2001:312415 Document No. 134:326541 Synthesis and use of substituted 4-(1H-indol-5-yl)aminoquinazoline derivatives and analogs for treatment of hyperproliferative disorders. Sobolov-jaynes, Susan B.; Arnold, Lee D. (Pfizer Inc., USA). U.S. US 6225318 B1 20010501, 17 pp., Cont.-in-part of U.S. Ser. No. 953,078, abandoneed. (English). CODEN: USXXAM. APPLICATION: US 1999-449855 19991126. PRIORITY: US 1996-PV28881 19961017; US 1997-953078 19971017.

GI



I





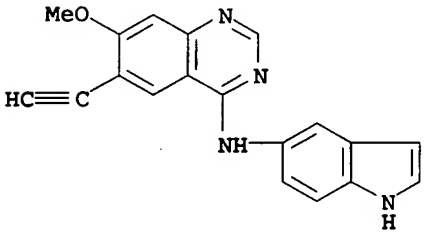
II

AB The title compds. I [R1 is selected from CF3, halo, NO2, OH, NH2, cyano, (C1-C4)alkoxy, etc; Q1 is Ar-Y-X, where Ar is pyridyl, thiophenyl (i.e., thienyl) or pyrazinyl wherein Ar may have up to 3 substituents, X is C2 alkene, C2 alkyne or **absent** and

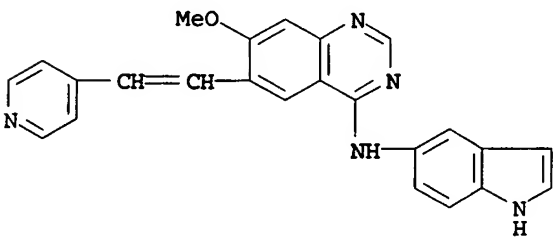
Y is (CH2)0-5 and wherein one or two of the CH2 groups may optionally and independently be replaced by either O, S, SO2, CO, NH or NMe; R5 is selected from CH2F, CHF2, CF3, halo, NO2, OH, NH2, (C1-C4)alkyl, Ph, etc.; or two R5s together with the carbon atoms to which they are attached, form an imidazole, pyrrole or pyrazole; q is 0-3] and similarly substituted 4-quinazolones are prepared More than 40 examples are provided. For example, heating (1H-indol-5-yl)-(6-iodo-7-methoxyquinazolin-4-yl)amine with 4-vinylpyridine, Pd acetate and NEt3 in MeCN gave (1H-indol-5-yl)-[7-methoxy-6-(2-pyridin-4-yl-vinyl)quinazolin-4-yl]amine (II). Compds. I are **inhibitors** of protein **tyrosine kinase.** In an EGFR kinase activity assay, I had IC50 values in the range of 0.0001-30 μM. **Inhibition** of tumor growth was determined in mice (on tumors induced by injection of human MDA-MD-468 breast or human HN5 head and neck carcinoma cells) to be >50% at concns. of 10 μM. Treatment of hyperproliferative diseases in a mammal is claimed.

IT **206190-35-4P 206190-36-5P 206190-37-6P**
206190-38-7P 206190-39-8P 206190-40-1P
206190-41-2P 206190-42-3P 206190-43-4P
206190-45-6P 206190-46-7P 206190-47-8P
206190-48-9P 206190-86-5P 206190-89-8P
206191-02-8P 206191-03-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and use of substituted 4-(indol-5-yl)aminoquinazoline derivs. for treatment of hyperproliferative disorders)

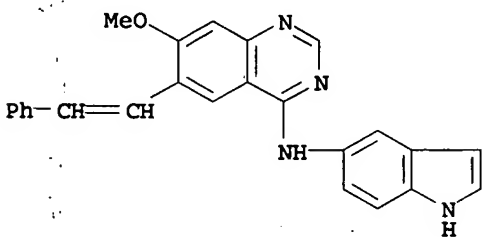
RN 206190-35-4 HCAPLUS
CN 4-Quinazolinamine, 6-ethynyl-N-1H-indol-5-yl-7-methoxy- (9CI) (CA INDEX NAME)



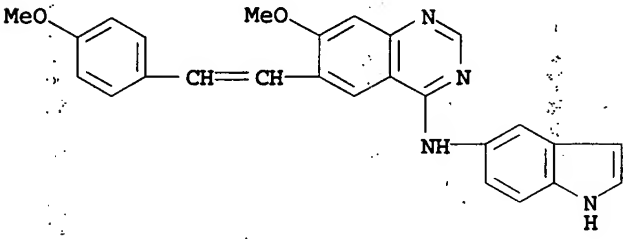
RN 206190-36-5 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-[2-(4-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)



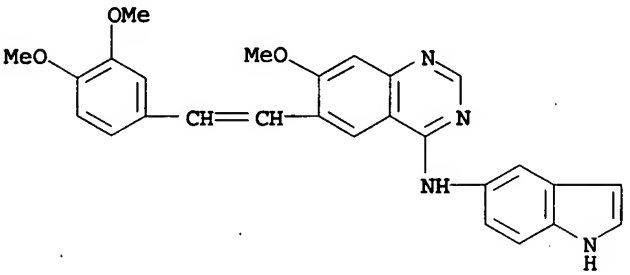
RN 206190-37-6 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-(2-phenylethenyl)- (9CI) (CA INDEX NAME)



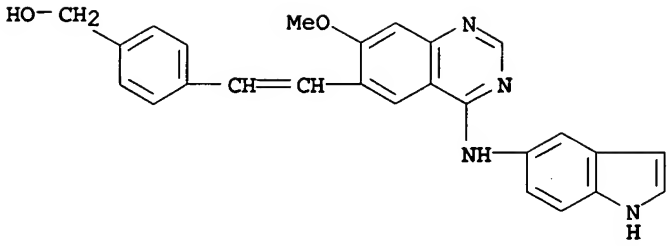
RN 206190-38-7 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-[2-(4-methoxyphenyl)ethenyl]- (9CI) (CA INDEX NAME)



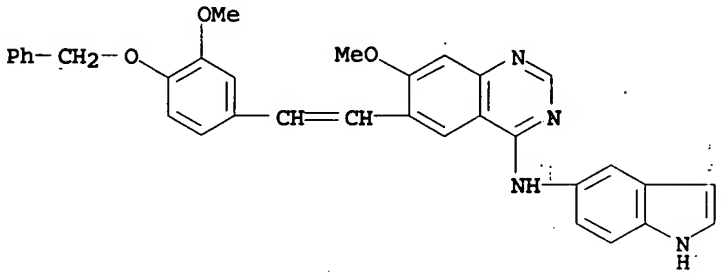
RN 206190-39-8 HCAPLUS
CN 4-Quinazolinamine, 6-[2-(3,4-dimethoxyphenyl)ethenyl]-N-1H-indol-5-yl-7-methoxy- (9CI) (CA INDEX NAME)



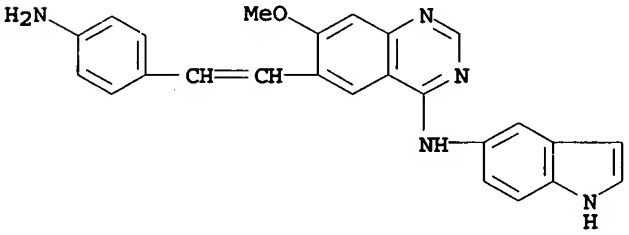
RN 206190-40-1 HCAPLUS
CN Benzenemethanol, 4-[2-[4-(1H-indol-5-ylamino)-7-methoxy-6-quinazolinyl]ethenyl]- (9CI) (CA INDEX NAME)



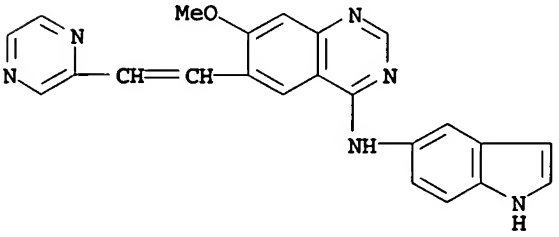
RN 206190-41-2 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-[2-[3-methoxy-4-(phenylmethoxy)phenyl]ethenyl]- (9CI) (CA INDEX NAME)



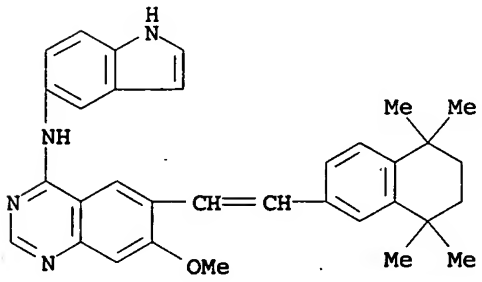
RN 206190-42-3 HCAPLUS
CN 4-Quinazolinamine, 6-[2-(4-aminophenyl)ethenyl]-N-1H-indol-5-yl-7-methoxy- (9CI) (CA INDEX NAME)



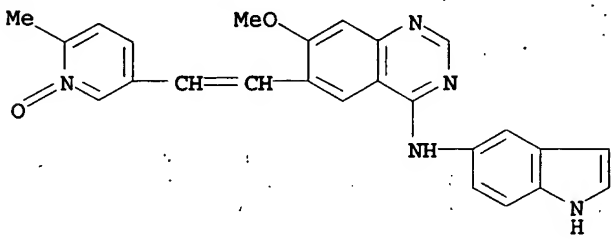
RN 206190-43-4 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-(2-pyrazinylethenyl)- (9CI) (CA INDEX NAME)



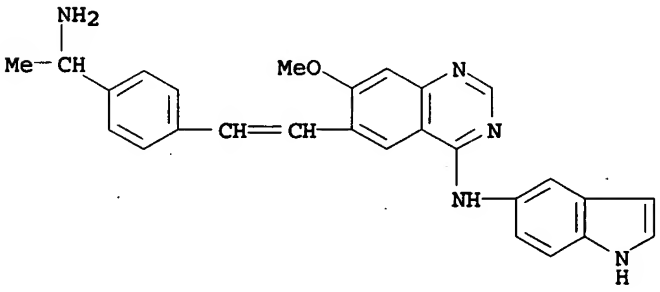
RN 206190-45-6 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-[2-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)ethenyl]- (9CI) (CA INDEX NAME)



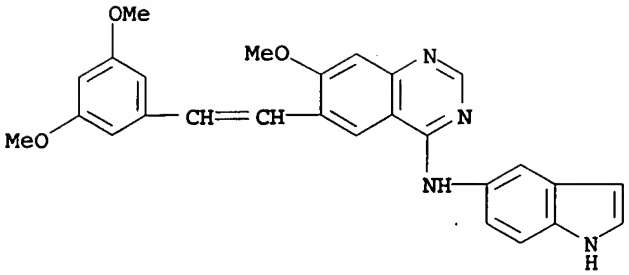
RN 206190-46-7 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-[2-(6-methyl-1-oxido-3-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)



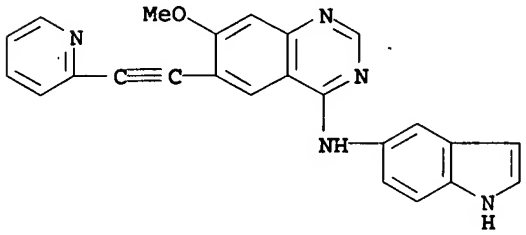
RN 206190-47-8 HCAPLUS
CN 4-Quinazolinamine, 6-[2-[4-(1-aminoethyl)phenyl]ethenyl]-N-1H-indol-5-yl-7-methoxy- (9CI) (CA INDEX NAME)



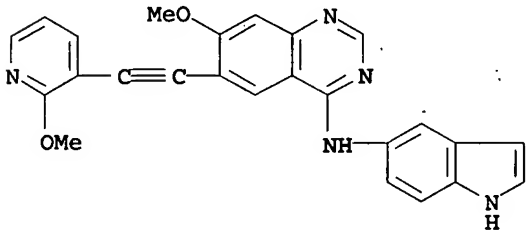
RN 206190-48-9 HCAPLUS
CN 4-Quinazolinamine, 6-[2-(3,5-dimethoxyphenyl)ethenyl]-N-1H-indol-5-yl-7-methoxy- (9CI) (CA INDEX NAME)



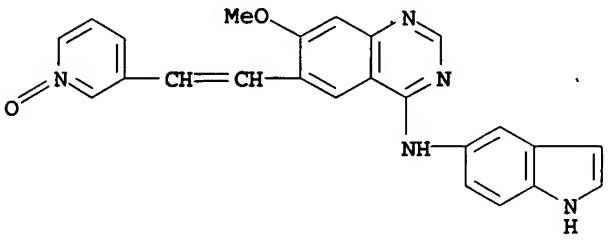
RN 206190-86-5 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-(2-pyridinylethynyl)- (9CI) (CA INDEX NAME)



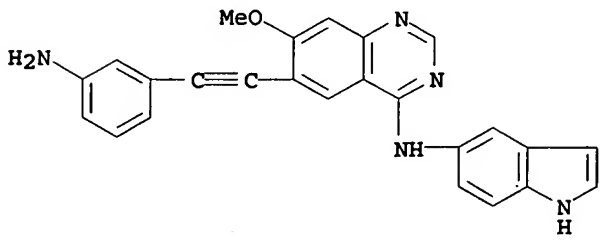
RN 206190-89-8 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-[(2-methoxy-3-pyridinyl)ethynyl]- (9CI) (CA INDEX NAME)



RN 206191-02-8 HCAPLUS
CN 4-Quinazolinamine, N-1H-indol-5-yl-7-methoxy-6-[2-(1-oxido-3-pyridinyl)ethenyl]- (9CI) (CA INDEX NAME)



RN 206191-03-9 HCAPLUS
CN 4-Quinazolinamine, 6-[(3-aminophenyl)ethynyl]-N-1H-indol-5-yl-7-methoxy- (9CI) (CA INDEX NAME)



IC ICM C07D401-14
ICS C07D403-14; C07D409-14; A61K031-381; A61K031-404
INCL 514259000
CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 63
IT Neck, anatomical
(carcinoma, **inhibitors**, HN5 carcinoma cells; synthesis and use of substituted 4-(indol-5-yl)aminoquinazoline derivs. for treatment of hyperproliferative disorders)
IT Mammary gland
(carcinoma, **inhibitors**, human MDA-MD-468 carcinoma cells; synthesis and use of substituted 4-(indol-5-yl)aminoquinazoline derivs. for treatment of hyperproliferative disorders)
IT Proliferation **inhibition**
(proliferation **inhibitors**; synthesis and use of substituted 4-(indol-5-yl)aminoquinazoline derivs. for treatment of hyperproliferative disorders)
IT 79079-06-4, EGFR kinase 80449-02-1, Protein **tyrosine kinase**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**inhibition**; synthesis and use of substituted 4-(indol-5-yl)aminoquinazoline derivs. for treatment of hyperproliferative disorders)
IT 206190-31-0P 206190-32-1P 206190-33-2P 206190-34-3P
206190-35-4P 206190-36-5P 206190-37-6P
206190-38-7P 206190-39-8P 206190-40-1P
206190-41-2P 206190-42-3P 206190-43-4P
206190-45-6P 206190-46-7P 206190-47-8P
206190-48-9P 206190-49-0P 206190-50-3P 206190-51-4P
206190-52-5P 206190-55-8P 206190-57-0P 206190-59-2P
206190-61-6P 206190-63-8P 206190-65-0P 206190-67-2P
206190-70-7P 206190-72-9P 206190-74-1P 206190-76-3P
206190-79-6P 206190-82-1P 206190-84-3P **206190-86-5P**
206190-89-8P 206190-91-2P 206190-95-6P 206190-96-7P
206190-99-0P **206191-02-8P 206191-03-9P**
336624-85-2P, (1H-Indol-5-yl)-[7-methoxy-6-(1-oxopyridin-3-yl)quinazolin-4-yl]amine 336624-87-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis and use of substituted 4-(indol-5-yl)aminoquinazoline derivs. for treatment of hyperproliferative disorders)

L138 ANSWER 17 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2001:67292 Document No. 134:336405 Differences in electromechanical coupling between bradykinin and the nonpeptide kinin B2 receptor agonist, FR 190997, in the circular muscle of guinea-pig colon. Santicioli, Paolo; Catalioto, Rose Marie; Meini, Stefania; Maggi, Carlo Alberto (Pharmacology Department, Menarini Ricerche S.p.A., Florence, 50131, Italy). Naunyn-Schmiedeberg's Archives of Pharmacology, 363(2), 175-181 (English) 2001. CODEN: NSAPCC. ISSN: 0028-1298. Publisher: Springer-Verlag.

AB The authors have compared the effect of bradykinin (BK) and the nonpeptide kinin B2 receptor agonist, FR 190997, in producing changes in membrane potential and tension in the circular muscle of guinea-pig colon by the sucrose gap technique. In the presence of atropine (1 μM), S-ketoprofen (3 μM) and apamin (0.1 μM), BK (1 μM for 20 s) induced a transient depolarization of the membrane with superimposed action potentials (spikes) and transient contraction. Nifedipine (1 μM) **eliminated** the spikes and markedly **inhibited** the BK-induced contractions. FR 190997 (3-10 micro μM for 20 s) induced a slowly developing sustained small depolarization associated with a slowly developing and sustained contraction but, contrary to BK, FR 190997 was unable to trigger spikes. Nifedipine had no effect on depolarization and contraction induced by FR 190997. In the presence of 1 micro μM nifedipine, the combined application of a **blocker** of receptor-operated cation channels, SKF 96365 (50 μM for 30 min), and of an **inhibitor** of sarcoplasmic reticulum calcium pump, cyclopiazonic acid (CPA 10 μM for 30 min), **reduced** the BK-induced depolarization and contraction by about 45%-60%. The same treatment induced about 40% **reduction** of the sustained contraction induced by FR 190997, whereas the concomitant depolarization was not significantly affected. The **tyrosine kinase inhibitor** genistein (40 μM for 20 min) had no effect on the BK- and FR 190997-induced depolarization and contraction in the presence of nifedipine. In radioligand binding expts. performed in membranes of colonic smooth muscle cells, both agonists displaced the [3H]BK specific binding with a pIC50 of 9.6 and 8.5 for BK and FR 190997, resp. These findings indicate a substantial qual. difference in mechanisms of excitation contraction coupling activated by BK and FR 190997 via B2 receptors in guinea-pig colon.

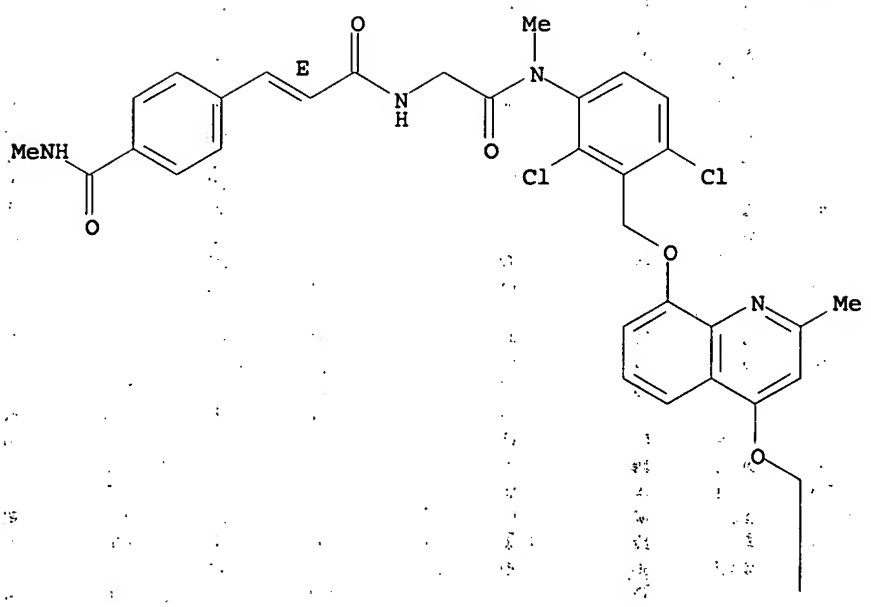
IT **193344-25-1**, FR 190997
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(differences in electromech. coupling between bradykinin and nonpeptide kinin B2 receptor agonist FR 190997 in circular muscle of guinea-pig colon)

RN 193344-25-1 HCAPLUS

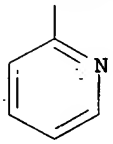
CN Benzamide, 4-[(1E)-3-[[2-[[2,4-dichloro-3-[[[2-methyl-4-(2-pyridinylmethoxy)-8-quinolinyl]oxy]methyl]phenyl]methylamino]-2-oxoethyl]amino]-3-oxo-1-propenyl]-N-methyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 2-A



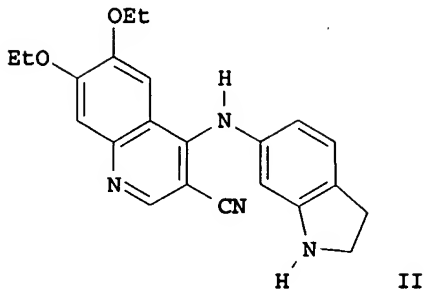
CC 2-10 (Mammalian Hormones)

IT 58-82-2, Bradykinin **193344-25-1**, FR 190997
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(differences in electromech. coupling between bradykinin and nonpeptide kinin B2 receptor agonist FR 190997 in circular muscle of guinea-pig colon)

L138 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2000:227652 Document No. 132:265101 Preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**
. Wissner, Allan; Tsou, Hwei-Ru; Berger, Dan Maarten; Floyd, Middleton Brawner, Jr.; Hamann, Philip Ross; Zhang, Nan; Salvati, Mark Ernest; Frost, Philip (American Cyanamid Company, USA). PCT Int. Appl. WO 2000018761 A1 20000406, 195 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2.

APPLICATION: WO 1999-US22054 19990922. PRIORITY: US 1998-162802 19980929.

GI



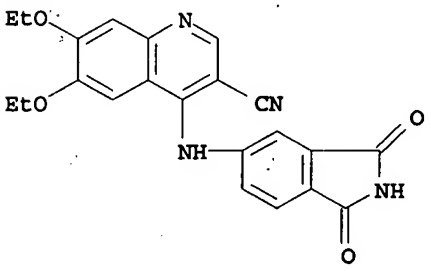
II

AB X(CH2)nZZ1CN [I; X = (un)substituted bicyclic (hetero)aryl or LTA; A = (un)substituted phenylene, -pyridinediyl, -pyrimidinediyl; T = O, S, (alkyl)imino(alkylene), oxyalkylene, etc.; Z = O, S, (alkyl or alkanoyl)imino; Z1 = 2-unsubstituted-5,6,7,8-(un)substituted quinoline-4,3-diyl; n = 0 or 1] were prepared Thus, Me 2-amino-4,5-diethoxybenzoate was N-condensed with HCNMe2/POCl3 and the product cyclocondensed with MeCN to give, after POCl3 treatment, 4-chloro-6,7-diethoxyquinoline-3-carbonitrile which was aminated by 6-aminoindoline to give title compd II. Data for biol. activity of I were given.

IT **263169-93-3P 263170-11-2P 263170-16-7P 263170-19-0P 263170-20-3P 263170-21-4P 263170-22-5P 263170-40-7P 263171-52-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

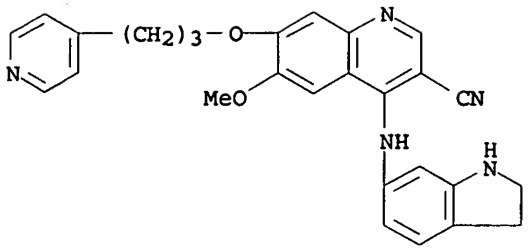
RN 263169-93-3 HCAPLUS

CN 3-Quinolinecarbonitrile, 4-[(2,3-dihydro-1,3-dioxo-1H-isoindol-5-yl)amino]-6,7-diethoxy- (9CI) (CA INDEX NAME)

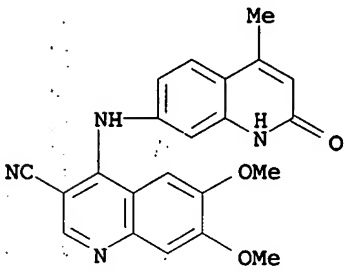


RN 263170-11-2 HCAPLUS

CN 3-Quinolinecarbonitrile, 4-[(2,3-dihydro-1H-indol-6-yl)amino]-6-methoxy-7-[3-(4-pyridinyl)propoxy]- (9CI) (CA INDEX NAME)



RN 263170-16-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(1,2-dihydro-4-methyl-2-oxo-7-quinolinyl)amino]-6,7-dimethoxy- (9CI) (CA INDEX NAME)



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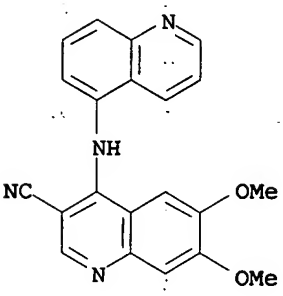
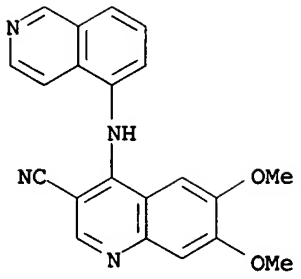


RN 263170-20-3 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-(5-isoquinolinylamino)-6,7-dimethoxy- (9CI) (CA INDEX NAME)



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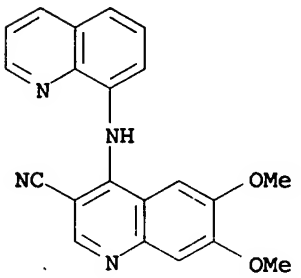
(9CI) (CA INDEX NAME)



RN 263170-22-5 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(8-hydroxy-5-quinolinyl)amino]-6,7-
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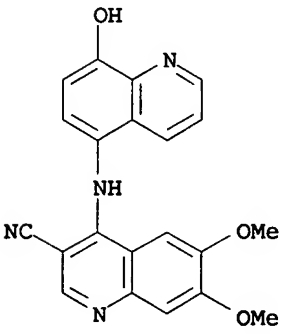
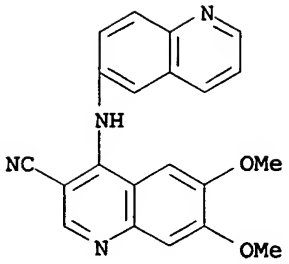


RN 263170-40-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 6,7-dimethoxy-4-(6-quinolinylamino)-
(9CI) (CA INDEX NAME)



RN 263171-52-4 HCAPLUS
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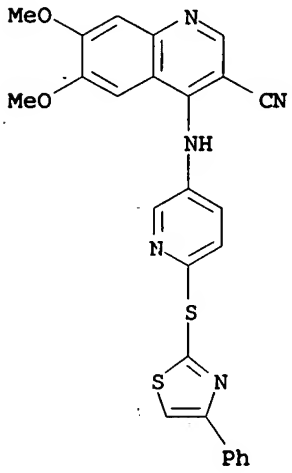
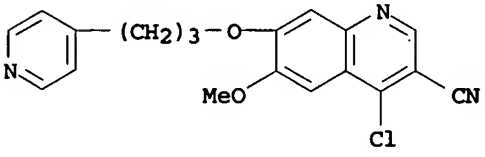


IT **263149-11-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)
RN 263149-11-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-chloro-6-methoxy-7-[3-(4-pyridinyl)propoxy]- (9CI) (CA INDEX NAME)



IC ICM C07D401-12
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CC 27-17 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1
ST cyanoquinoline prepn protein **tyrosine kinase inhibitor**
IT Growth factor receptors
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(mediated disorders; treatment; preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)
IT Kidney, disease
(polycystic, treatment; preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)
IT Antitumor agents
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)
IT 288-32-4, Imidazole, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(Growth factor receptors preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)
IT **263169-81-9P** 263169-82-0P 263169-83-1P 263169-84-2P
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263171-54-6P 263171-55-7P 263171-56-8P 263171-57-9P
RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 59-31-4, Carbostyril 87-13-8, Diethyl ethoxymethylenemalonate 91-21-4, 1,2,3,4-Tetrahydroisoquinoline 94-05-3, Ethyl ethoxymethylenecyanoacetate 97-52-9, 2-Methoxy-4-nitroaniline 99-52-5 100-01-6, 4-Nitroaniline, reactions 103-76-4, 1-(2-Hydroxyethyl)piperazine 106-96-7, Propargyl bromide 107-19-7, Propargyl alcohol 109-01-3, 1-Methylpiperazine 109-86-4, 2-Methoxyethanol 110-91-8, Morpholine, reactions 111-42-2, Diethanolamine, reactions 111-95-5 123-90-0, Thiomorpholine 134-20-3, Methyl anthranilate 177-11-7, 1,4-Dioxa-8-azaspiro[4,5]decane 350-30-1, 3-Chloro-4-fluoronitrobenzene 533-30-2, 6-Aminobenzothiazole 536-90-3, 3-Methoxyaniline 578-66-5, 8-Aminoquinoline 580-15-4, 6-Aminoquinoline 611-34-7, 5-Aminoquinoline 621-33-0, 3-Ethoxyaniline 624-65-7, Propargyl chloride 632-02-0, 3-Chloropropyl p-toluenesulfonate 645-08-9, 3-Hydroxy-4-methoxybenzoic acid 934-22-5, 5-Aminobenzimidazole 1117-71-1, Methyl 4-bromocrotonate 1125-60-6, 5-Aminoisoquinoline 2217-41-6, 1-Amino-5,6,7,8-tetrahydronaphthalene 2629-72-3, 4-(3-Hydroxypropyl)pyridine 3177-80-8, 2-Amino-3-methoxybenzoic acid 3325-11-9, 5-Aminobenzotriazole 3943-74-6, Methyl 4-hydroxy-3-methoxybenzoate 4442-54-0 4684-12-2, 1-Amino-4-chloronaphthalene 4747-21-1, Isopropylmethylamine 5035-82-5, Methyl 2-amino-3,4,5-trimethoxybenzoate 5192-03-0, 5-Aminoindole 5192-23-4, 4-Aminoindole 5318-27-4, 6-Aminoindole 5382-16-1, 4-Hydroxypiperidine 5685-05-2, 2-Mercaptothiazole 6315-89-5, 4-Aminoveratrole 6967-12-0, 6-Aminoindazole 7223-38-3, N,N-Dimethyl-2-propynylamine 7357-67-7, 4-(3-Chloropropyl)morpholine 13669-62-0, 4-Chloro-6-methoxyquinoline-3-carbonitrile 14268-66-7, 3,4-Methylenedioxyaniline 19335-11-6, 5-Aminoindazole 20197-71-1, Methyl 2-amino-4,5-diethoxybenzoate 20503-40-6, 6-Amino-1,1-dioxobenzo[b]thiophene 21302-43-2, 5-Amino-8-hydroxyquinoline dihydrochloride 22013-33-8, 6-Amino-1,4-benzodioxane 24425-40-9 26093-31-2, 7-Amino-4-methylcoumarin 28228-73-1, 6-Aminoindoline dihydrochloride 28782-50-5, 4-Aminophthalhydrazide 29043-48-9, 5-Amino-2-methyl-1H-benzimidazole 32770-99-3, 5-Amino-2-methylbenzothiazole dihydrochloride 38256-93-8, N-Methyl-2-methoxyethylamine 42533-63-1, 4-Bromomethyl-3-chloro-1-nitrobenzene 50472-10-1, 2-Amino-3,6-dimethoxybenzoic acid 56354-98-4, 6-Amino-2-benzothiazolinone 57319-65-0, 6-Aminophthalide 57366-77-5 61032-42-6, Methyl 2-amino-4-benzyloxy-5-methoxybenzoate 63126-47-6, (S)-2-Methoxymethylpyrrolidine 69975-65-1, 6-Amino-1-indanone 133303-88-5 169037-24-5 179688-27-8, Ethyl 2-amino-4,5-bis(2-methoxyethoxy)benzoate 263171-68-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

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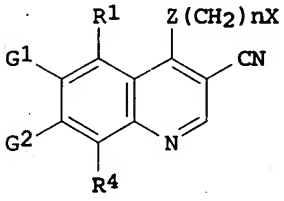
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 3-cyanoquinolines as protein **tyrosine kinase inhibitors**)

L138 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
2000:227636 Document No. 132:265100 Preparation of substituted 3-cyanoquinolines as protein **tyrosine kinases inhibitors**. Wissner, Allan; Tsou, Hwei-Ru; Berger, Dan Maarten; Floyd, Middleton Brawner, Jr.; Hamann, Philip Ross; Zhang, Nan; Frost, Philip (American Cyanamid Company, USA). PCT Int. Appl. WO 2000018740 A1 20000406, 164 pp. DESIGNATED STATES: W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2.
APPLICATION: WO 1999-US22056 19990922. PRIORITY: US 1998-162289 19980929.

GI



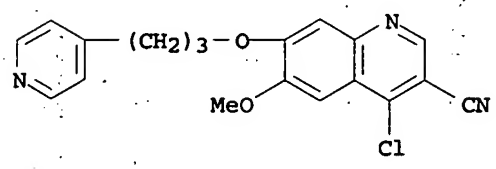
I

AB The title compds. I [X = cycloalkyl, pyridinyl, pyrimidinyl, etc.; Z = NH, O, S, NR; G1, G2, R1, R4 = H, halo, alkyl, alkynyl, etc.; n = 0,1], protein **tyrosine kinase inhibitors**, were prepared E.g., 4-(2-methoxyethoxy)but-2-ynoic acid [4-(3-bromophenylamino)-3-cyanoquinolin-6-yl]amide was prepared I are useful as antineoplastic agents.

IT **263149-11-7P 263149-12-8P 263150-34-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

RN 263149-11-7 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-chloro-6-methoxy-7-[3-(4-pyridinyl)propoxy]- (9CI) (CA INDEX NAME)



RN 263149-12-8 HCAPLUS
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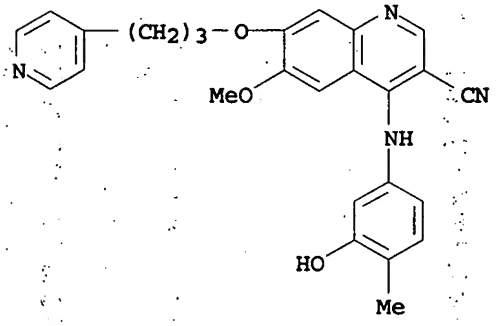
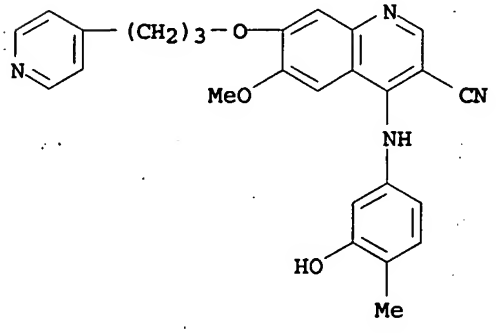
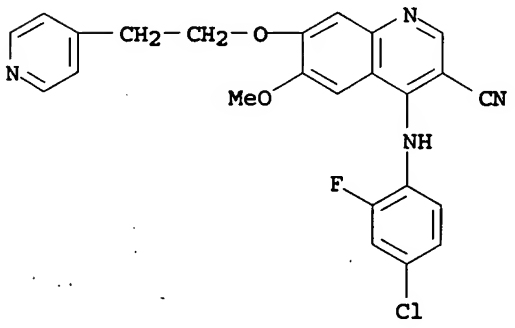


●x HCl

RN 263150-34-1 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(3-hydroxy-4-methylphenyl)amino]-6-methoxy-7-[3-(4-pyridinyl)propoxy]- (9CI) (CA INDEX NAME)



IT **263148-99-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)
RN 263148-99-8 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(4-chloro-2-fluorophenyl)amino]-6-methoxy-7-[2-(4-pyridinyl)ethoxy]- (9CI) (CA INDEX NAME)



IC ICM C07D215-54
ICS A61K031-47; C07D401-12; C07D417-12; C07D215-56; C07D401-04; C07D491-10; C07D405-12; C07D413-12; C07D491-10; C07D317-00; C07D211-00
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1
ST cyanoquinoline prepn protein **tyrosine kinase inhibitor**; quinoline cyano prepn protein **tyrosine kinase inhibitor**; antineoplastic agent cyanoquinoline prepn
IT 198149-15-4P 263148-94-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)
IT 2103-50-6P 214476-89-8P 214476-99-0P 263148-87-4P
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263150-31-8P 263150-32-9P **263150-34-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 80449-02-1, Protein **tyrosine kinase**
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 94-05-3 97-52-9, 2-Methoxy-4-nitroaniline 98-16-8, 3-Trifluoromethylaniline 99-52-5 100-01-6, 4-Nitroaniline, reactions 103-76-4, 4-(2-Hydroxyethyl)piperazine 106-40-1, 4-Bromoaniline 106-96-7, Propargyl bromide 107-19-7, Propargyl alcohol 107-30-2, Chloromethyl methyl ether 107-94-8, 3-Chloropropionic acid 108-42-9, 3-Chloroaniline 108-44-1, 3-Toluidine, reactions 109-01-3, 1-Methylpiperazine 109-83-1, 2-(Methylamino)ethanol 109-86-4, 2-Methoxyethanol 110-97-4, 1,1'-Iminodi-2-propanol 111-42-2, Bis(2-hydroxyethyl)amine, reactions 111-95-5 123-90-0, Thiomorpholine 124-02-7, Diallylamine 177-11-7, 1,4-Dioxa-8-azaspiro[4.5]decane 367-21-5, 3-Chloro-4-fluoroaniline 504-78-9, Thiazolidine 536-90-3, 3-Methoxyaniline 590-93-2, 2-Butynoic acid 591-19-5, 3-Bromoaniline 615-55-4, 3,4-Dibromoaniline 621-33-0, 3-Ethoxyaniline 624-65-7, Propargyl chloride 626-01-7, 3-Iodoaniline 656-64-4, 3-Bromo-4-fluoroaniline 693-95-8, 4-Methylthiazole 766-17-6, cis-2,6-Dimethylpiperidine 1117-71-1, Methyl 4-bromocrotonate 2237-30-1, 3-Aminobenzonitrile 2629-72-3, 3-(4-Pyridyl)-1-propanol 2799-21-5, (R)-3-Pyrrolidinol 2835-95-2, 3-Hydroxy-4-methylaniline 3378-71-0, 2,5-Dimethylpyrrolidine 3433-37-2, 2-Hydroxymethylpiperidine 3581-89-3, 5-Methylthiazole 3863-11-4, 3,4-Difluoroaniline 4606-65-9, 3-Hydroxymethylpiperidine 4747-21-1, Isopropylmethylamine 5231-87-8 5344-27-4, 2-(4-Pyridyl)ethanol 5382-16-1, 4-Hydroxypiperidine 6139-84-0, 4-Chlorobutanal 7223-38-3, 1-Dimethylamino-2-propyne 32631-26-8 38256-93-8 41775-76-2, 1,4,7-Trioxa-10-azacyclododecane 41979-39-9, 4-Piperidone hydrochloride 51544-74-2, 4-Bromocrotonyl chloride 54060-30-9, 3-Ethynylaniline 57366-77-5 57946-56-2, 4-Chloro-2-fluoroaniline 61032-42-6 63126-47-6 74024-49-0 214470-55-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 2458-24-4P 13280-03-0P 20629-35-0P 27333-44-4P 45813-02-3P 71083-64-2P 118764-05-9P 214470-27-6P 214470-33-4P
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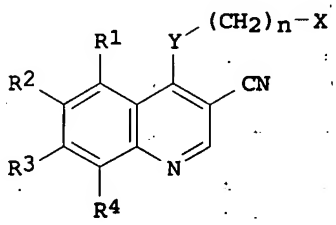
263149-28-6P 263149-29-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

IT 214485-81-1P 214487-06-6P 263148-96-5P 263148-97-6P
263148-99-8P 263150-36-3P 263150-38-5P 263150-40-9P
263150-42-1P 263150-44-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyanoquinolines as protein **tyrosine kinase inhibitors**)

L138 ANSWER 20 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN
1999:794373 Document No. 132:35620 Preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK).
Wissner, Allan; Johnson, Bernard D.; Reich, Marvin F.; Floyd, Middleton B. , Jr.; Kitchen, Douglas B.; Tsou, Hwei-ru (American Cyanamid Co., USA). U.S. US 6002008 A 19991214, 80 pp. (English). CODEN: USXXAM. APPLICATION: US 1998-49718 19980327. PRIORITY: US 1997-41963 19970403.

GI



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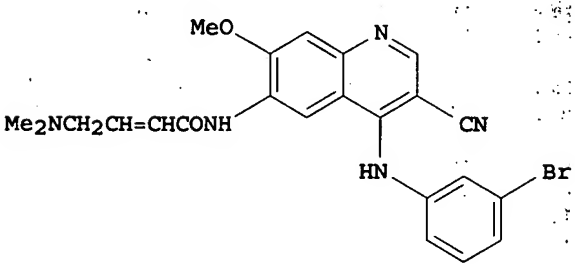


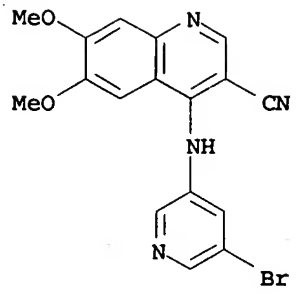
II

AB This invention provides compds. having the formula (I; wherein: X is cycloalkyl which may be optionally substituted; or is a pyridinyl, pyrimidinyl, or Ph ring; wherein the pyridinyl, pyrimidinyl, or Ph ring may be optionally substituted; n is 0-1; Y is NH, O, S, or NR; R is alkyl of 1-6 carbon atoms; R1, R2, R3,

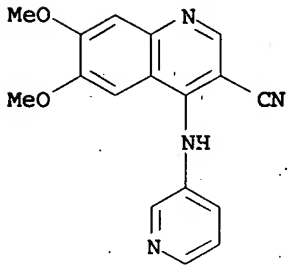
and R4 are each, independently, hydrogen, halogen, alkyl, alkenyl, alkynyl, alkenyloxy, alkynoyloxy, hydroxymethyl, halomethyl, alkanoyloxy, alkenoyloxy, alkynyloxy, alkanoyloxymethyl, alkenoyloxymethyl, alkynoyloxymethyl, alkoxymethyl, alkoxy, alkylthio, alkylsulphinyl, alkylsulfonyl, alkylsulfonamido, alkenylsulfonamido, alkynylsulfonamido, hydroxy, trifluoromethyl, cyano, nitro, carboxy, carboalkoxy, carboalkyl, phenoxy, Ph, thiophenoxy, benzyl, amino, hydroxyamino, alkoxyamino, alkylamino, dialkylamino, aminoalkyl, N-alkylaminoalkyl, N,N-dialkylaminoalkyl, phenylamino, benzylamino, etc.; R5 is alkyl which may be optionally substituted, or Ph which may be optionally substituted; R6 is hydrogen, alkyl, or alkenyl; R7 is chloro or bromo; R8 is hydrogen, alkyl, aminoalkyl, N-alkylaminoalkyl, N,N-dialkylaminoalkyl, N-cycloalkylaminoalkyl, N-cycloalkyl-N-alkylaminoalkyl, N,N-dicycloalkylaminoalkyl, morpholino-N-alkyl, piperidino-N-alkyl, N-alkyl-piperidino-N-alkyl, azacycloalkyl-N-alkyl, hydroxyalkyl, alkoxyalkyl, carboxy, carboalkoxy, Ph, carboalkyl, chloro, fluoro, or bromo; Z is amino, hydroxy, alkoxy, alkylamino, dialkylamino). The compds. of the present invention **inhibit** the action of certain growth factor receptor protein **tyrosine kinases** (PTK) thereby **inhibiting** the abnormal growth of certain cell types. They are therefore useful for the treatment of certain diseases that are the result of deregulation of these PTKs, in particular as anti-cancer agents for the treatment of cancers expressing epidermal growth factor receptor (EGFR), mitogen activated protein kinase (MAPK), epithelial kinase (ECK), and kinase insert domain containing receptor (KDR) in mammals and for the treatment of polycystic kidney disease in mammals. Thus, To a mixture of 1.9 g (5.1 mmol) of 4-[(3-bromophenyl)amino]-7-methoxy-6-amino-3-quinolinecarbonitrile and 5.3 mL (31 mmol) of Hunig's base in 110 mL of dry THF at 0° C., with stirring, was added a THF solution containing 5.7 g (31 mmol) of 4-bromocrotonyl chloride dropwise. The mixture was stirred for addnl. 0.5 h. After addition 100 mL of saturated sodium chloride solution was added to the reaction mixture, then it was extracted with Et acetate. The Et acetate solution was dried over sodium sulfate and then was added to 40 mL of di-Me amine solution (2.0 M in THF) at 0° dropwise and stirred an addnl. 0.5 h to give 4-Dimethylamino-but-2-enoic acid [4-(3-bromo-phenylamino)-3-cyano-7-methoxy-quinolin-6-yl]amide (II). II showed IC50 of 0.000008 μM against epidermal growth factor receptor kinase.

IT **214484-43-2P 214486-36-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK) for treatment of cancers and polycystic kidney disease)

RN 214484-43-2 HCAPLUS
CN 3-Quinolinecarbonitrile, 4-[(5-bromo-3-pyridinyl)amino]-6,7-dimethoxy- (9CI) (CA INDEX NAME)



RN 214486-36-9 HCAPLUS
CN 3-Quinolinecarbonitrile, 6,7-dimethoxy-4-(3-pyridinylamino)- (9CI) (CA INDEX NAME)



IC ICM A01A043-42
ICS C07D215-16; C07D215-38
INCL 546160000
CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 7
ST cyanoquinoline prepn **inhibitor** growth factor receptor protein **tyrosine kinase**; anticancer cyanoquinoline prepn; polycystic kidney disease treatment cyanoquinoline
IT Kidney, disease
(polycystic; preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK) for treatment of cancers and polycystic kidney disease)
IT Antitumor agents
(preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK) for treatment of cancers and polycystic kidney disease)
IT Epidermal growth factor receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK) for treatment of cancers and polycystic kidney disease)
IT 9031-44-1, Kinase
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC

(Process)
(Epithelial cell; preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK) for treatment of cancers and polycystic kidney disease)

IT 13436-14-1P 214470-52-7P 214476-70-7P 214484-01-2P
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214485-12-8P 214485-14-0P 214485-15-1P 214485-17-3P
214485-18-4P 214485-22-0P 214485-26-4P 214485-27-5P
214485-60-6P 214486-09-6P 214486-12-1P 214486-48-3P
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214487-12-4P 214487-14-6P 214487-15-7P 214487-16-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK) for treatment of cancers and polycystic kidney disease)

IT 71083-59-5P 214470-72-1P 214470-78-7P 214483-99-5P
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214484-36-3P 214484-37-4P 214484-39-6P 214484-40-9P
214484-41-0P 214484-42-1P **214484-43-2P** 214484-44-3P
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK) for treatment of cancers and polycystic kidney disease)

IT 214487-05-5P 214487-06-6P 214487-07-7P 214487-08-8P
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214488-80-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK) for treatment of cancers and polycystic kidney disease)

IT 142243-02-5, Mitogen activated protein kinase
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine kinases** (PTK) for treatment of cancers and polycystic kidney disease)

IT 62-53-3, Aniline, reactions 68-12-2, DMF, reactions 74-89-5, Methylamine, reactions 74-97-5, Bromochloromethane 75-03-6, Ethyl iodide 75-05-8, Acetonitrile, reactions 75-36-5, Acetyl chloride 79-03-8, Propionyl chloride 79-04-9, Chloroacetyl chloride 80-41-1, 2-Chloroethyl p-toluene sulfonate 87-13-8, Diethyl ethoxymethylenemalonate 88-68-6, Anthranilamide 94-05-3, Ethyl (ethoxymethylene)cyanoacetate 95-03-4, 5-Chloro-o-anisidine 95-69-2, 4-Chloro-2-methylaniline 95-74-9, 2-Chloro-4-amino-toluene 95-76-1, 3,4-Dichloroaniline 95-84-1, 2-Amino-p-cresol 95-85-2, 2-Amino-4-chlorophenol 97-52-9, 2-Methoxy-4-nitro aniline 98-16-8, 3-

(Trifluoromethyl)aniline 99-03-6 99-09-2, 3-Nitroaniline 99-52-5 100-01-6, 4-Nitroaniline, reactions 100-46-9, Benzylamine, reactions 100-61-8, N-Methylaniline, reactions 102-49-8, 3,4-Dichlorobenzylamine 102-50-1, 4-Methoxy-2-methyl-aniline 104-10-9, 4-Aminophenethyl alcohol 104-96-1 106-40-1, p-Bromoaniline 106-44-5, 4-Methylphenol, reactions 106-53-6, 4-Bromothiophenol 107-08-4, 1-Iodopropane 107-30-2, Chloromethyl methyl ether 107-93-7, (E)-But-2-enoic acid 108-24-7, Acetic anhydride 108-42-9, 3-Chloroaniline 108-44-1, 3-Toluidine, reactions 108-45-2, 1,3-Diaminobenzene, reactions 108-91-8, Cyclohexylamine, reactions 109-65-9, 1-Bromobutane 109-89-7, Diethylamine, reactions 110-91-8, Morpholine, reactions 124-40-3, Dimethylamine, reactions 134-20-3, Methyl anthranilate 139-59-3, 4-Phenoxyaniline 141-75-3, Butyryl chloride 320-51-4, 4-Chloro-3-trifluoromethylaniline 348-62-9, 4-Chloro-2-fluoro phenol 363-81-5, 2,4,6-Trifluoro-aniline 367-21-5, 3-Chloro-4-fluoroaniline 371-40-4, 4-Fluoroaniline 372-19-0, 3-Fluoroaniline 452-69-7, 4-Fluoro-3-methylaniline 455-14-1, 4-(Trifluoromethyl)aniline 462-08-8, 3-Amino-pyridine 496-73-1 536-46-9, 4-Dimethylaminoaniline dihydrochloride 536-90-3, 3-Methoxyaniline 589-16-2, 4-Ethylaniline 590-93-2, 2-Butynoic acid 591-19-5, 3-Bromoaniline 591-20-8, 3-Bromophenol 591-27-5, 3-Aminophenol 598-21-0, Bromoacetyl bromide 609-21-2, 4-Amino-2,6-dibromophenol 615-55-4, 3,4-Dibromoaniline 621-33-0, 3-Ethoxy aniline 626-01-7, 3-Iodoaniline 632-02-0, 3-Chloropropyl p-toluenesulfonate 645-08-9, 3-Hydroxy-4-methoxybenzoic acid 656-64-4, 3-Bromo-4-fluoroaniline 814-68-6, Acryloyl chloride 920-46-7, Methacryloyl chloride 1535-73-5, 3-Trifluoromethoxyaniline 1609-93-4, cis-3-Chloro acrylic acid 1687-53-2, 5-Amino-2-methoxyphenol 1783-81-9, 3-(Methylthio)aniline 1877-77-6, 3-Aminobenzyl alcohol 2170-03-8, Itaconic anhydride 2237-30-1, 3-Aminobenzonitrile 2835-68-9, 4-Amino-benzamide 2835-95-2, 3-Hydroxy-4-methyl-aniline 2835-97-4 2835-98-5, 6-Amino-m-cresol 2835-99-6, 4-Amino-m-cresol 2987-53-3, 2-(Methylmercapto)aniline 3096-71-7, 4-Amino-2,5-dimethylphenol 3171-45-7 3177-80-8, 2-Amino-3-methoxy-benzoic acid 3544-24-9, 3-Aminobenzamide 3575-32-4 3586-12-7, 3-Phenoxyaniline 3863-11-4, 3,4-Difluoroaniline 3943-74-6 3964-52-1, 4-Amino-2-chlorophenol 4432-44-4 4637-24-5, Dimethylformamide dimethyl acetal 5035-82-5, Methyl 3,4,5-trimethoxyanthranilate 5339-85-5, 2-Aminophenethyl alcohol 5369-16-4, 3-Isopropylaniline 5763-61-1, 3,4-Dimethoxybenzylamine 5930-28-9, 4-Amino-2,6-dichlorophenol 6100-60-3, 3-Hydroxy-4-methoxy phenol 6315-89-5, 4-Aminoveratrole 6482-24-2, 2-Bromoethyl methyl ether 7357-67-7, N-(3-Chloropropyl)-morpholine 7664-41-7, Ammonia, reactions 7745-91-7, 3-Bromo-4-methylaniline 10269-01-9, 3-Bromobenzylamine 10387-40-3, Potassium thioacetate 13066-95-0, 4-Aminoresorcinol 13535-01-8, 3-Amino-5-bromopyridine 13669-62-0 17609-80-2, 4-Amino-3-chlorophenol 20197-71-1 20629-35-0, 4-Bromocrotonic acid 24303-64-8, 4-Methoxy-2-butynoic acid 26628-22-8, Sodium azide 32631-26-8 38346-95-1 38346-97-3 50472-10-1, 2-Amino-3,6-dimethoxybenzoic acid 51544-74-2 52130-17-3, 3-Amino-2-methylbenzoic acid 53222-92-7, 3-Amino-o-cresol 54060-30-9, 3-Ethynylaniline 55120-56-4 57946-56-2, 4-Chloro-2-fluoro-aniline 61882-45-9, 4-Methoxycrotonyl chloride 72235-53-1, 3,4-Difluorobenzylamine 79863-92-6 83647-42-1, 3-Amino-2-methylbenzyl alcohol 84478-72-8, 4-Chloro-2-fluoro-5-hydroxy-aniline 102245-65-8 118764-05-9 124623-36-5 141772-40-9 179688-27-8 184356-52-3 214477-50-6 214477-76-6 214483-18-8

214483-20-2 214487-26-0 214487-27-1 214487-28-2
214487-29-3 214487-30-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine** **kinases** (PTK) for treatment of cancers and polycystic kidney disease)

IT 6702-50-7P, Methyl 3-Hydroxy-4-methoxybenzoate 26893-14-1P
27333-44-4P 30199-65-6P 50413-49-5P 54358-89-3P,
3-Chloroacryloyl chloride 61338-35-0P 71083-64-2P
71083-71-1P 73387-74-3P 97966-31-9P 111627-40-8P
113290-32-7P 214470-27-6P 214470-33-4P 214470-35-6P
214470-37-8P 214470-41-4P 214470-49-2P 214470-50-5P
214470-55-0P 214470-56-1P 214470-57-2P 214470-58-3P
214470-59-4P 214470-60-7P 214470-61-8P 214470-66-3P
214470-68-5P 214470-75-4P 214470-85-6P 214470-90-3P
214471-46-2P 214471-57-5P 214471-73-5P 214471-93-9P
214472-17-0P 214472-37-4P 214472-41-0P 214475-83-9P
214475-85-1P 214475-98-6P 214475-99-7P 214476-00-3P
214476-07-0P 214476-08-1P 214476-09-2P 214476-14-9P
214476-23-0P 214476-46-7P 214476-63-8P 214476-65-0P
214476-68-3P 214476-69-4P 214476-71-8P 214476-77-4P
214476-78-5P 214476-89-8P 214476-99-0P 214484-18-1P
214484-21-6P 214484-55-6P 214484-56-7P 214484-57-8P
214484-70-5P 214484-76-1P 214484-97-6P 214485-52-6P
214485-53-7P 214485-59-3P 214485-64-0P 214485-65-1P
214485-68-4P 214485-69-5P 214485-74-2P 214485-75-3P
214486-46-1P 214486-50-7P 214489-60-8P 252264-44-1P,
2-Cyano-3-(4-nitrophenylamino)acrylic acid ethyl ester
252264-45-2P, 2-Cyano-3-(2-methyl-4-nitrophenyl)acrylic acid ethyl ester 252264-46-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of substituted 3-cyanoquinolines as **inhibitors** of growth factor receptor protein **tyrosine** **kinases** (PTK) for treatment of cancers and polycystic kidney disease)

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